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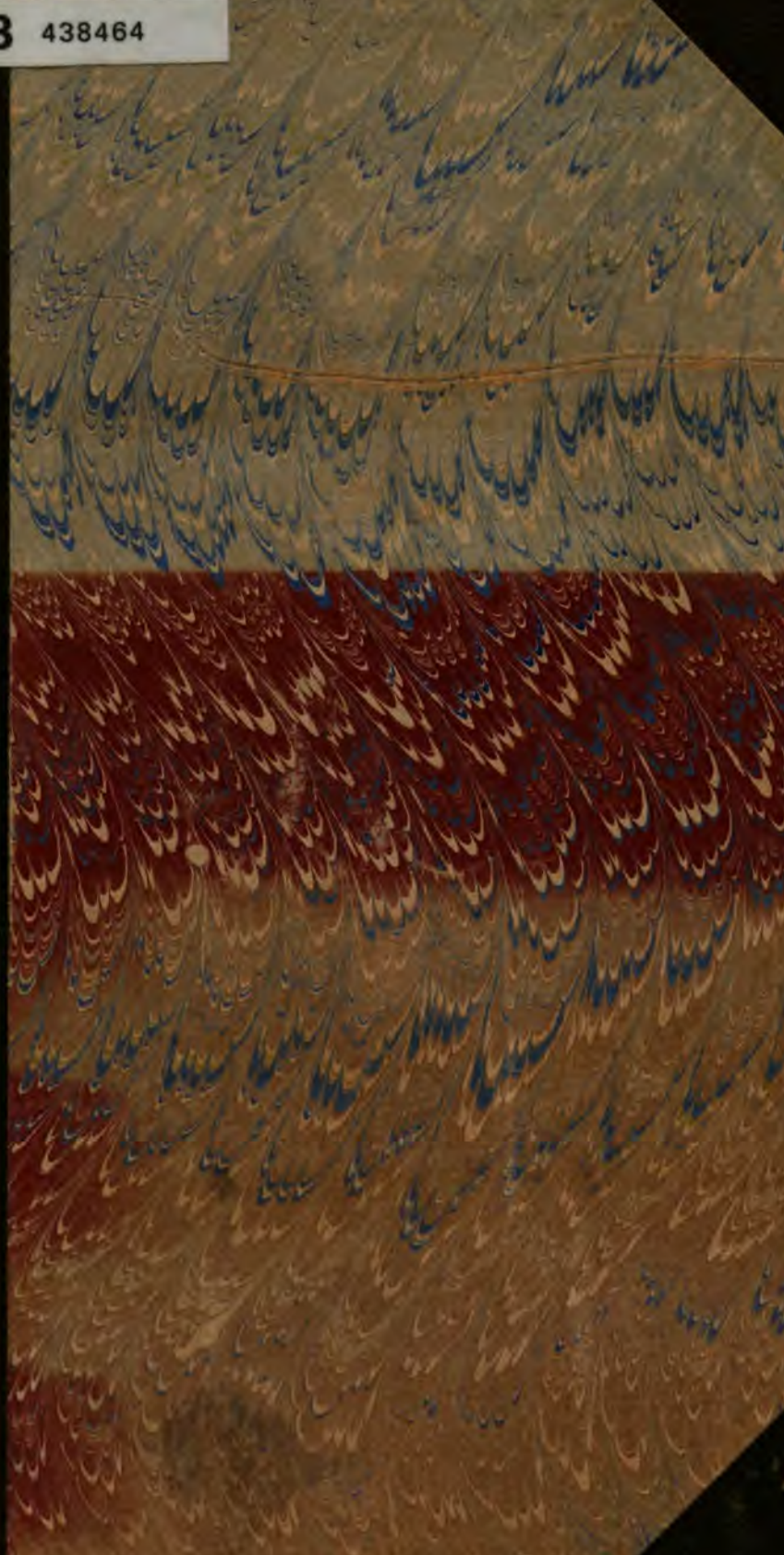
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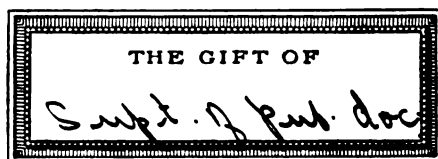
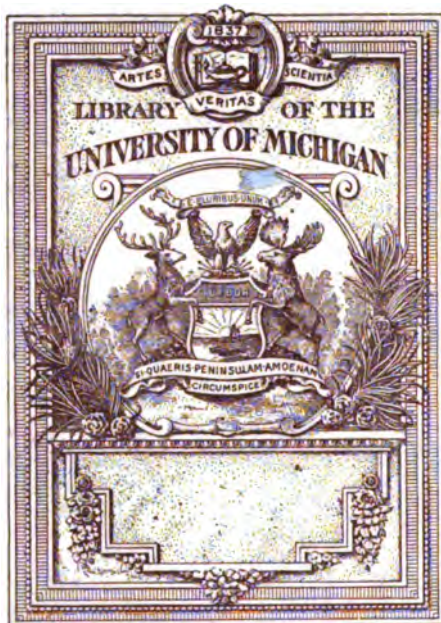
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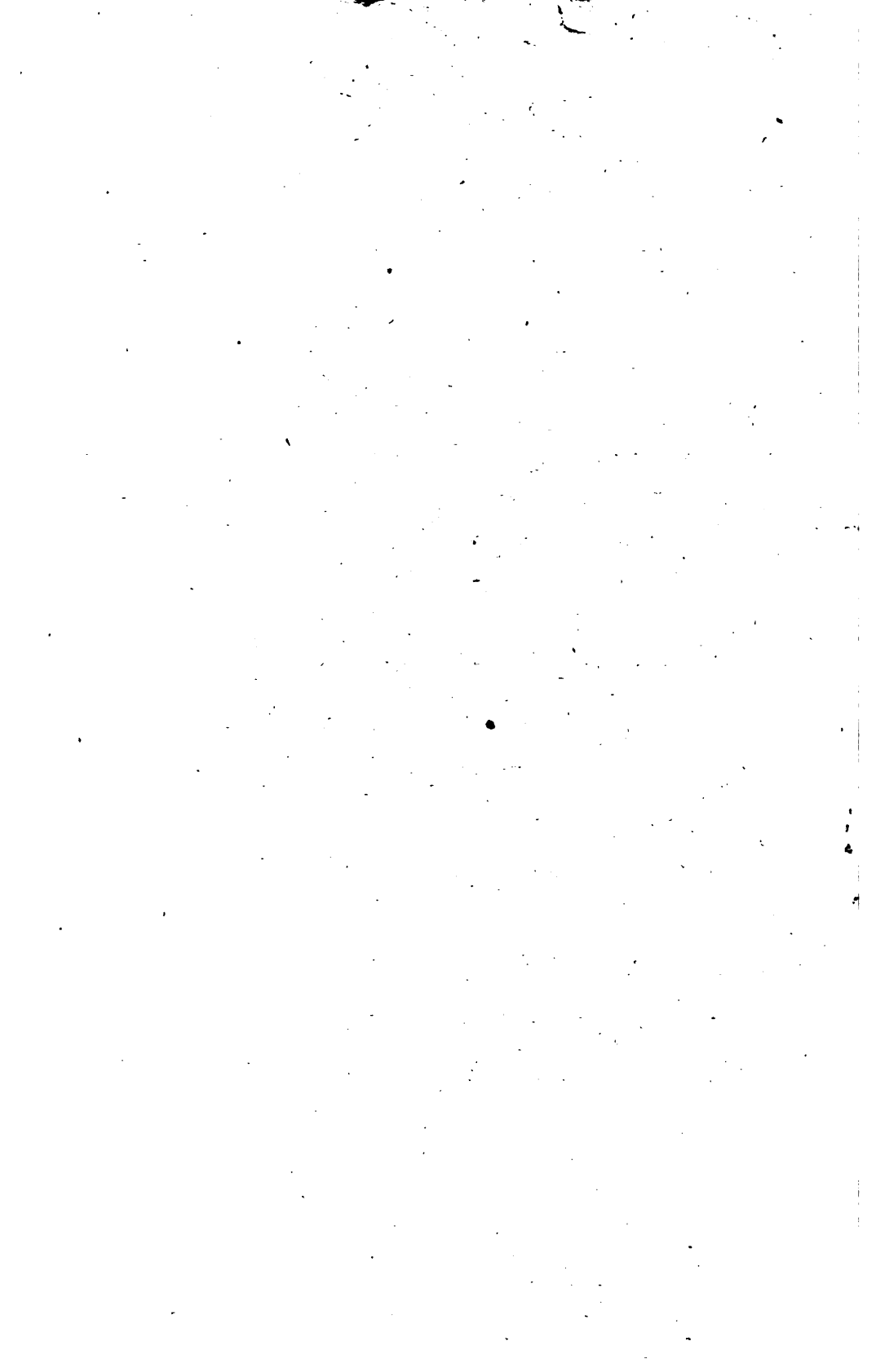
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DEPARTMENT OF COMMERCE AND LABOR
BUREAU OF MANUFACTURES

MONTHLY
9629
CONSULAR AND TRADE
REPORTS

MAY, 1907

No. 320



WASHINGTON
GOVERNMENT PRINTING OFFICE
1907

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MONTHLY CONSULAR *and* TRADE REPORTS

Washington, D. C.

MAY, 1907

No. 320

EUROPE.

REPUBLIC OF FRANCE.

PRESENT INDUSTRIAL ACTIVITY.

MINES AND MILLS WORKING DAY AND NIGHT—HIGHER PRICES.

In reviewing the commercial and industrial activity of 1906 in the St. Etienne region, Consul Hilary S. Brunot states that the year has been one of continued and progressive prosperity. Every branch of the local industries has profited by the general advance in orders, both home and foreign; mines, foundries, factories, are all working full time and find difficulty in keeping pace with the demands. The consul declares that as a natural consequence prices have gone up considerably, coal has increased from 40 to 65 cents per ton, iron has followed in the same ratio, while since many months, raw silk has advanced from \$10 to \$12.50. He continues:

The coal mines in the region work day and night and are still unable to satisfy their customers. To add to the difficulty, there is a considerable shortage in the car supply on account of a large portion of the rolling stock being lent to Italy to aid the industries in that country. The output of the whole region in 1906 amounted to 3,500,000 tons, of which half a million was exported to Italy or Switzerland, the remainder being for the home demand. Of the 12 mining companies composing the coal basin, 6 have an output of close on to half a million tons each year, while those of the neighboring departments, although numerous (24), produce but insignificant quantities, or a total of 700,000 tons.

Briquettes and coke are in good favor, the former being in much demand for the railways, taking the place of coke.

STEEL-RAIL INDUSTRY.

As has been said the mills and foundries of central France exhibit great activity; they are fully occupied and large orders have been received, notably for marine plates and railway stock equipment, and rails made in the new increased length as adopted by nearly all the railway companies. Engineers have been constantly preoccupied with the weak points of the roads constituted by the joints, and until

lately none of the methods proposed—notably suppressing the joints by welding—gave satisfactory results, and the question has been to a certain extent solved by diminishing the number of joints by lengthening the rail as much as possible.

Formerly, by reason of the difficulties in manufacture, it was not possible to give more than 18 feet to the rail, the equipment of the mills not allowing a mass of greater weight than 500 or 600 pounds to pass through the rolls. But when cast steel made its appearance and the rolls could receive blooms upward of 2,000 pounds, the idea of increasing the length of the rail was entertained, and to-day all the six great railway systems have adopted the long rail. However, the length is not uniform. Several companies employ a rail of 16 meters (52.8 feet), while others prefer 18 or 22 meters (59.4 to 72.6 feet).

NEW METHOD FOR COMPRESSING STEEL.

Although the programme of the marine department has been somewhat curtailed for the time being, a considerable amount of material will be called for from this district. The superior council of the marine provided last year a fleet which, with proposed construction, would ultimately be composed of 38 battle ships, 20 armored cruisers, 6 scout cruisers, 109 destroyers, 170 torpedo boats, 82 offensive submarines, and 89 defensive submarines. Naturally some years will be required to complete this programme, but it is certain several of the 18,000-ton battle ships will be immediately begun, and a number are expected to be completed in four years. It is probable that this year (1907) 5 destroyers and 10 submarines will be placed under construction.

A large amount of orders for these purposes have been received by the steel works of St. Etienne, and already these mills are being considerably enlarged so as to meet the demands. The principal transformations refer to the addition of shops for compressing steel and a new foundry.

Of all the methods of compressing steel, that invented by M. Harmet, engineer at St. Etienne, which compresses by trefilage, is considered the best, and new presses have been established by which ingots of 30 tons can be worked, whereas hitherto not more than 12-ton ingots could be employed. The new constructions comprise two Martin furnaces of 20 tons and furnished with machinery of the latest perfection. Among the new features of these extensive mills is the manufacture of cemented steel plates for battle ships, and a large order for these plates has been received from the Admiralty.

AUTOMOBILES AND BICYCLES.

The iron mills are running full time and the future looks favorable. All the different industries are also very active. The construction of automobiles, bicycles, etc., gives work to a large number of mechanics with fair wages. However, automobiles, properly speaking, are not made here to any extent, but a great many shops make different parts of the cars for Lyon and Paris houses. The bicycle, on the other hand, is completely built here by several large firms. The leading firm in this group commenced in a very small way. Twenty years ago it began with 25 workmen, while to-day the personnel exceeds 2,000 and the business done annually amounts

to \$2,000,000. The factory is furnished with the most perfect machinery, the greater part of which comes from the United States (dynamos, gun borers, lathes, automatic printing presses, etc.). Every week some machinery, and also Winchester rifles, small tools, and technical instruments arrive from America. The number of sporting guns made annually in the factory amounts to 36,000. It is the only French manufactory where the gun passes from the raw material to the highly finished article.

About 10,000 bicycles are turned out annually, of which a large number is exported to many foreign countries. One of the marks of the firm is the retrograde bicycle, commonly called "Retro," which allows, by a change of gear, back pedaling. By this arrangement hills can be mounted with facility. Many of these bicycles are sent to Peru and Chile, where the country is more or less hilly.

VALUE OF EXPORTS.

The exportations for the year 1906 aggregated \$2,180,317, an increase of \$598,000 over the figures for 1905. The principal exports were:

Antimony	\$34, 351	Lace	\$402, 735
Beads	3, 915	Meat, canned	2, 853
Braids	4, 176	Mineral water	2, 853
Button stock	9, 869	Preserved fruit	11, 489
Cheese	311, 181	Mushrooms	1, 299
Corset material	14, 817	Rat-traps	8, 248
Cutlery	21, 810	Ribbons (silk)	564, 693
Embroidery	2, 265	Ribbons (velvet)	572, 788
Firearms	2, 052	Silk (artificial)	2, 850
Gloves	147, 308	Tires (automobiles)	21, 609
Harness	7, 044	Walnuts	24, 609
Horse hair (artificial)	2, 524		

GOVERNMENT MONOPOLIES.

GROWTH OF THE FRENCH TOBACCO AND MATCH BUSINESS.

Consul-General Robert P. Skinner, of Marseille, furnishes the following particulars concerning the French Government monopolies of the tobacco and match trade:

The importations of leaf tobacco into France have been in tons as follows during the last three years:

From—	General commerce.			Special commerce.*		
	1906.	1905.	1904.	1906.	1905.	1904.
United States	15, 530	18, 116	19, 479	14, 863	19, 007	16, 239
Algeria	3, 627	1, 864	3, 141	3, 403	1, 701	3, 017
Other countries	13, 476	14, 411	10, 685	6, 075	9, 686	6, 764
Total	32, 633	34, 391	33, 305	24, 341	30, 374	26, 020

* Quantities entered for domestic consumption.

The importations for domestic consumption are all taken up by the tobacco monopoly, purchases for which now are made almost exclusively by direct agents of the Government. Each April a delegation of State employees visit the tobacco centers of Kentucky and Tennessee and contract directly with American firms. Maryland

tobacco is still supplied to the State by contract, the present furnishers being a Bremen firm. [Name on file at Bureau of Manufactures.] It seems probable that eventually all tobacco will be purchased on the spot, as is now the case in Kentucky and Tennessee. The details in regard to this vast enterprise are all controlled by the Directeur Général de Manufactures de l'Etat au Ministère des Finances, Paris.

The latest report of this monopoly covers the year 1905. Prices paid in that year for Maryland, Virginia, Kentucky, and other tobaccos averaged \$16.58 per 220 pounds (100 kilos). Leaf tobacco from Sumatra, Java, the Levant, Habana, Mexico, and Brazil averaged in cost \$39.90 per 220 pounds. Leaf tobacco from Hungary and Astrakan cost \$16.49 per 220 pounds.

OPERATIONS AND PROFITS.

In 1905 the receipts of the French tobacco monopoly amounted to \$87,254,181, an increase of \$673,724 over those of 1904, and the expenses amounted to \$15,705,212, a decrease of \$228,708 from those of 1904. The sales to the public were as follows: Cigars, 5,685,147 pounds; cigarettes, 4,968,299 pounds; scaferlati, 62,694,889 pounds; roll and chewing tobacco, 2,605,629 pounds, and powdered, 10,357,142 pounds, making a total of 86,329,106 pounds. The average rate of consumption per individual in 1905 was 35.411 ounces, of which 4.232 ounces represented tobacco in powder and 31.179 ounces smoking and chewing tobacco.

The production of domestic tobacco is authorized under supervision in twenty-five Departments, and the results have been as follows:

Year.	Planters.	Land cultivated.	Crop.	Value of crop.	Price paid per 220 pounds.	Yield per hectare (2.417 acres).	Returns per hectare (2.417 acres).
		<i>Acres.</i>	<i>Pounds.</i>			<i>Pounds.</i>	
1905.....	53,750	39,439	61,614,900	\$4,949,381	\$17.76	3,858	\$310.09
1904.....	53,749	39,024	45,092,106	3,602,017	17.66	2,853	228.08

THE MATCH MONOPOLY.

In 1905 the total receipts of the Government from the sale of matches amounted to \$6,938,157, an increase of \$114,212 over those of 1904. The expenses amounted to \$1,812,067, an increase of \$22,399 over those of the preceding year. Three kinds of matches are manufactured: (1) Ordinary wooden sulphur matches, which may be applied to any surface; (2) wooden safety matches, which require a special surface; (3) wax matches. In 1905 the Government sold 39,794,495,740 matches for the sum of \$6,846,092.

The average rate of consumption per capita in 1905 amounted to 1,022 matches. In 1905 the personnel employed was composed of 614 men and 1,305 women, whose salaries amounted to \$565,149.16. The average daily pay of the employees has advanced steadily year by year. The pay for a ten-hour day in 1890 was 84 cents for men and 43.6 cents for women; in 1900 it was \$1.24 and 88.7 cents, respectively, going up further in 1905 to \$1.29 and 97 cents.

GRENOBLE.

OPPORTUNITIES FOR EXTENDING AMERICAN TRADE.

In his annual review of the business of his consular district for the calendar year 1906, Consul C. H. P. Nason writes from Grenoble:

Grenoble not being an importing center, it is impossible to obtain any statistics as to goods of American origin that find their way into this district. For the most part, save here and there a few purchases, they are bought directly or through traveling salesmen, from dealers or agencies in Paris, or from European importers.

Persistent effort is being made to establish direct relationship through correspondence and otherwise between merchants and manufacturers here and American producers, with what result remains yet to be seen. I can not but think it is stimulating the former to consider and handle more and more of certain kinds of American goods. The maximum tariff to which our products are subjected in entering France is a serious barrier to larger importations.

When once a demand has arisen in this country for a special American production, as for example boots and shoes, coal and gas stoves, carpet sweepers, certain forms of hardware or machinery, the tendency is to reproduce the same here on American lines through use of American machinery, and generally at lower prices. At Romans, for example, 50 miles from here, are now two extensive shoe factories working in this way and turning out "American shoes."

LACK OF HOUSEHOLD ARTICLES.

One is often surprised on examining the stock carried by the stores and bazaars in French provincial cities at the lack of household, garden, and office necessities. Slowly, however, certain articles are working their way in, such as shoes and rubbers, stoves, typewriters, sewing machines, carpet sweepers, canned goods, pickles and preserves, certain forms of hardware and tools, a few farming implements and machines, and some musical instruments. There is no store in Grenoble, which, with the outlying tributary region, represents a population of 250,000, devoted wholly to office furniture and supplies. As a consequence, beyond a very limited variety, one must order anything special, or what at home would seem a necessary article, from Lyon or Paris, with difficulty of finding even there the thing desired and at moderate price. In this direction might be found a trade opportunity.

The commercial museum, in the new building of the chamber of commerce, open every afternoon, attracts an increasing number of visitors. Here might be an opportunity for an American manufacturer or business concern to place on exhibition specimens of their products which, by their labor-saving showing, might attract the attention of French buyers or consumers; or for trade journals, commercial bulletins, special catalogues, and the like, to find some readers or establish some "exchanges."

THE GLOVE INDUSTRY—HIGH PRICES FOR SKINS.

The total value of merchandise exported to the United States through Grenoble in the year ended December 31, 1906, was \$3,138,246, an increase of \$1,354,000 over 1905. The principal articles of export

to the United States were kid gloves and walnuts. These two aggregated \$2,562,872 last year. Of kid gloves the value was \$1,956,472, which is nearly equal to one-half of the entire value of kid gloves imported from France during that year.

The kid-glove industry, of which Grenoble is the center, has been marked by unwonted activity. For several years prior to 1905 there had been a gradual decline in the demand if not in the use of ladies' kid gloves in the United States. This was largely due to the growing outdoor use, especially in the warmer season, of the so-called "fabric gloves," gloves made of lisle thread, silk, etc., and which had been greatly improved both in design and finish. Fashion then decreed a shorter sleeve to the woman's dress, both for indoor and outdoor wear, and there followed, and still continues, the reign of the long kid glove. White was at first the prevailing color, but later the preference was given to black and what is known as the tan shade. Gloves in these colors, from moderate to extreme lengths, have gone forward as never before to the United States. This demand has put an unwonted strain upon the skin markets, and not only France but all other kid-producing countries have been ransacked to find the coveted material, the more so because the longer gloves call for skins of double length, or two skins put together, in place of one skin of ordinary length. In consequence, the prices of kid and lamb skins have tended steadily upward; until there has been almost a panic in the skin market.

EFFECT OF ADVANCE IN PRICES.

This naturally has accrued to the greater profit of the skin merchants, skin gatherers, and growers. The larger manufacturers who were fortunate enough to have full stocks on hand have also profited. It has been hardest on the smaller manufacturers, who have been forced to buy their skins at current rates to meet previous contracts or hold their customers. Retail prices of gloves have necessarily advanced, but not in proportion to the rise in prices of skins. These within a year have doubled and even more than doubled. And this condition of things has been only intensified by the use of skins for other purposes than gloves, and by the dearth of material in the world's leather market pushing the price of all kinds of leather up notch by notch.

The present year, 1907, opens with prices and shipments well maintained. There is a feeling of hesitancy as to the placing of orders for the coming fall trade, owing to the uncertain turns fashion may take. At the same time kid gloves, longer or shorter, in one form or another, will not cease the less to be worn, and the best will always be in demand.

GROWTH AND EXPORT OF WALNUTS.

The total value of walnuts imported into the United States for the calendar year 1906 was \$2,493,167. Of this total there was received from Grenoble \$600,123. Of the walnut crop in the Grenoble district and the exports thereof to the United States, Consul Nason writes:

Like all other crops, that of walnuts varies widely from year to year. For example, according to the estimates of the French Chamber of Commerce, the value of the entire crop throughout France in 1899 was \$2,575,550. In 1901 it was \$3,827,178. For a certain year

the figures rose as high as \$5,000,000. Naturally the exportations to foreign countries will follow the same variation. In 1905 the total of foreign exportations is given as \$2,432,938, represented in quantity as 61,760,325 pounds. A fair average for foreign exportations to England, Germany, Switzerland, Belgium, Algeria, Italy, etc., together with the United States, might be placed at \$2,300,000 in value. Of these general exportations it is estimated that fully one-fourth in value goes to the United States.

As it concerns this consulate, the exportations to the United States from the Department of the Isère, invoiced here (considerable quantities are invoiced elsewhere, as at Marseille), are found to have varied in values as follows for the calendar years—

1900 -----	\$303, 104	1904 -----	\$354, 025
1901 -----	311, 385	1905 -----	367, 308
1902 -----	197, 562	1906 -----	600, 123
1903 -----	388, 727		

Walnuts, either shelled or unshelled, are exported throughout the entire year, but the largest quantities go forward in the last or harvest quarter of the year (October to December) and in the succeeding quarter. Hundreds of the farmers' and peasants' families in the nut region are occupied much of the winter season in the breaking or shelling of these nuts, which go by the name of "walnut halves" or "kernels." These kernels are carefully put up in cases of 25 kilos each (1 kilo = 2.2 pounds). The unshelled nuts, the best of which are known as "mayettes," are packed in bales of 50 or 100 kilos each, and by far the larger part are shipped in the few months following the harvest.

AMERICAN WALL PAPER.

DEALER SUGGESTS THAT IT SHOULD BE KEPT IN STOCK.

Consul D. I. Murphy, of Bordeaux, reports that there might be found a good market in that part of France for American wall paper. He says further:

The greater part of the wall paper used here is naturally of French manufacture. While much of it is of artistic design and beautifully and tastefully colored, a great deal of it does not favorably compare with American paper either in design, quality, color, or price. Large quantities come from England and Germany, the manufacturers of which have agencies here doing a thriving business, dealers being able to obtain needed supplies quickly. American wall paper has only been sold here for a year and a half by four dealers. [Names on file at Bureau of Manufactures.] From what they say, it is believed that an American agency here would do well, as the American designs, styles, and prices seem to please the trade. One of the largest dealers says that he has found it impossible to obtain supplies without great delay, but if the paper were kept in stock the agency would be a profitable venture. The French duty on wall paper is 16 francs (\$3.09) per 100 kilos (220 pounds).

GERMANY.

THE FOREIGN TRADE.

CONTINUED RATE OF GROWTH IN IMPORTS AND EXPORTS.

Consul Thomas H. Norton, in the following report from Chemnitz, summarizes the imports and exports of Germany for 1906:

The totals for the foreign trade of Germany during the past year have been expected with exceptional interest, as revealing to some extent the working of the new tariff with its increased protective features, which came into operation on March 1, 1906. Contrary to pessimistic predictions, they exhibit the same steady rate of expansion which existed during the years immediately preceding. Comparison is made with the figures for 1904 and 1905.

	1906.	1905.	1904.
Imports.....	\$1,983,137,000	\$1,769,822,000	\$1,630,364,000
Exports.....	1,476,009,000	1,390,362,000	1,266,115,000
Total.....	3,459,146,000	3,160,174,000	2,896,479,000

The total foreign trade of Germany for 1906 shows an advance of 9.4 per cent on that of 1905 and of 19 per cent on that of 1904. During the year the import of precious metals amounted to 551 metrical tons, valued at \$116,310,600, an increase of \$43,150,000 over 1905. The export was \$28,250,000.

CHANGES IN THE STAMP LAW.

Consul Norton also advises that the Bundesrath of the German Empire has just issued a decision in connection with the requirements of the imperial stamp law which may be of interest to American houses having business relations with Germany.

In the future stamps will not be required upon a document which is issued to replace one already duly stamped, even when minor alterations are introduced, provided that the value involved does not exceed the amount given in the original. This simplifies and renders less expensive renewals of notes, bonds, mortgages, etc., when minor alteration, involving even the introduction of new items, are so frequently desired. Hitherto exceptions of this character have been granted only in the case of new documents issued to replace stamped papers lost or destroyed, and judicially declared as no longer valid.

FORMATION OF TRUSTS.

MANY LINES CONTROLLED BY COMBINATIONS.

Consul-General Richard Guenther, of Frankfort, writes that scarcely a day passes but the German newspapers report a new trust, syndicate, or fusion of some line of manufacturing in Germany. The consul-general continues:

The causes assigned for these centralizing movements are the increasing cost of the products, the greater demands of the employees,

the sacrifices and losses brought about by injudicious competition among the manufacturers and dealers, etc. The object aimed at by the formation of these trade combines is to protect and promote the interests of the individual members and of their line of trade as a whole. In the pursuit of this aim the combines establish strict rules and stipulations as to the prices and credit terms for the sale of their products, regulations affecting the relations with their working people and the price to be paid for labor, the methods to be adopted in common for influencing legislation and administrative measures at home in favor of their trade interests or to remove impediments thereto which may exist in foreign customs laws or practices, to obtain better transportation facilities and shipping rates, etc.

Accounts from Düsseldorf state that the projected combine of the wholesale dealers in the line of braids, trimmings, and woollen goods has progressed so that a convention is to take place at Berlin, which is to complete its organization. The chief purpose is to establish uniform terms of sale and credit and to fix the prices for the goods.

FURTHER AMALGAMATIONS.

The glue manufacturers are negotiating for the formation of a trust. The central bureau for the sale of all glue made in Germany is to be located at Berlin. A large number of manufacturers of canned vegetables, fruits, etc., of southern Germany have met recently in Mainz and concluded a combine (convention) to fix and enhance prices for their goods, in order to compensate for the steadily rising cost of the raw materials which they use. Negotiations are pending among the various companies manufacturing artificial silk according to the Chardonnet method to unite all of them into a trust. The apparent motive of this projected move, a Frankfort paper says, is to obtain higher prices. The German works manufacturing electrical apparatus for medical purposes, for X rays, etc., have resolved to advance the prices for their productions 10 per cent. Twelve electrical companies in Switzerland which are members of a combine have decided to advance their prices on electrical articles and heating apparatus 15 per cent.

BICYCLE TRUST.

Negotiations for the creation of a trust by the bicycle manufacturers of Germany have been going on for some time past; they have now culminated in an agreement to establish a fusion of all the bicycle works for the purpose of enhancing the prices of their productions. The prices of the bicycles have in late years considerably declined, in spite of the adverse circumstances of the increased cost of the materials and labor of their construction. This unsatisfactory condition has been brought about by the keen competition in the trade, chiefly coming from makers whose bicycles are not well known or are of low quality.

MACHINE TOOL MANUFACTURE.

At a recent meeting of the executive board of the German association of machine tool manufacturers at Berlin a report was read on the present business condition, which is said to be excellent. The works have orders for a long period ahead, increase of prices for the

machines are readily accorded, and payments are prompt. In many cases the prices obtained are not commensurate with the increased cost of the raw materials and the higher wages paid for labor. This discrepancy is owing to the foreign competition, especially that from the United States, which offer lower prices and quicker delivery, more particularly for medium size and small machines. To maintain prices is all the more necessary, as indications warrant the belief that materials and labor will further advance. In spite of the enhanced wages paid, skilled operatives are scarce, necessitating the factories to put on night shifts.

While the exportation of German machine tools has developed satisfactorily, yet the strongly increased importation of American machines gives cause for anxiety in regard to the future outcome. As a means to prepare against less buoyant business conditions, it is deemed advisable to emulate the American system of specialization in the manufacture of machine tools. By working this system extensively the dull seasons may be effectively tided over.

BREMEN.

IMPORTANCE OF ITS MANUFACTURING INTERESTS.

Consul W. T. Fee reports on the development, industrial enterprise, and commercial life of Bremen as follows:

In the year 1884 Bremen entered the Customs Union of the German Empire. About that date was commenced the construction of a harbor for ocean-going vessels and the regulation and improvement of the River Weser, upon the banks of which, some 45 miles from the sea, lies the city of Bremen. This enterprise worked the transformation of the city. The increased ocean traffic induced by the splendid new harbor and improved river facilities brought into being a new industrial and commercial life unknown to the Bremen of old. So that now, by reason of the extent of its foreign trade, the importance of its industrious and rapidly improving manufacturing interests, of the wide territory of which it is the trade emporium and distributing center, and by reason of the immensity of the European emigration to America, of which it is a principal port of embarkation, Bremen has become one of the chief and important cities of the German Empire.

A BUSY REGION.

Not only the city of Bremen has undergone this change, but also the cities and towns bordering the lower course of the river. As had been foreseen by the constructors of the Bremen harbor, industry has made good use of the advantages offered by a river navigable for ocean vessels. Large tracts of land, formerly of very little value and hardly able to give a living to the farmer tilling it, were needed for the construction of the harbor and its accommodations. Factories and warehouses are now making more profitable use of this land than the farmer ever could have done. Before the river was canalized ocean vessels could not reach Bremen, but had to discharge their cargo at Bremerhaven, about 40 miles down the river. A few small shipyards constructing wooden craft that, owing to the miserable condition of the river, could send their vessels down to the sea only during the spring floods, and a rice mill, an oil refinery, and an iron

foundry were then representing Bremen's industry. With the improvements made in the river and the construction of the harbor the business of these establishments increased, competition arose, consolidations took place, money was attracted by profitable investments in commerce and manufacturing, labor found ready employment and a new industrial growth began.

The small shipyards have disappeared, and out of the iron foundry, above mentioned, a large shipyard has grown, which at present employs 4,000 men. Vessels of large dimensions are being built, both for the merchant marine and the imperial German navy. There are four other shipyards on the river. All these yards are exceedingly prosperous and give well-paid employment to thousands of workmen, both skilled and unskilled. A prominent industrial enterprise at Bremen manufactures articles of ships' equipments, fire-extinguishing apparatus, submarine signal apparatus, and such like. This factory was founded in 1901, and has also a shipyard in connection. It has proved to be a great success.

MORE NEW INDUSTRIES.

Bremen enterprise made itself furthermore felt in the foundation of two stock companies, one of which, with a stock capital of \$833,000, is located at the river town of Nordenham, on the Oldenburg side of the Weser, for the purpose of smelting zinc, copper, and silver ores imported from Australia, South America, and other foreign countries, thus avoiding unnecessary inland transportation for that part of the products destined for reexportation. There is also being erected at this same town a superphosphate factory, with a stock capital of \$238,000. This factory will procure its needed supply of raw phosphates partly from Algiers and partly from the United States. There is also located at this prosperous river town a company owning its own vessels and interested also in the docking and warehouse business.

The large demand of the neighboring shipyards and factories for metal supplies prompted enterprising Bremen business men to form another stock company, with a capital of \$2,856,000, which will build iron furnaces and rolling mills on the right bank of the River Weser, where Swedish and Spanish ores will be smelted. It is expected that the local shipyards will be ready buyers of the products thus obtained. Nearly all these newly founded industries and manufacturing factories are the direct results of the impetus given to sea traffic by the improvements in river and harbor facilities at Bremen.

Many other factories and industries are also reaping the benefit of the improved waterway by having chosen Bremen or its vicinity for their location. There are chemical works, silver factories, jute mills, and oil factories, boiler factories, rice mills, starch and box factories, linoleum works, and a host of smaller manufacturing industries in or near Bremen which to a large extent owe their inception to the improved facilities of water transportation. In view of the fact that the deepening of the channel and the regulating of the upper course of the Weser is now under contemplation, and the building in the near future of inland canals in connection therewith has already been decided upon, the prospect for a yet larger increase of profitable industry in this section of the country is auspicious.

MANUFACTURERS' TOURS.**PLAN PROPOSED FOR A JOINT COMMERCIAL TRIP TO EUROPE.**

With a view to extending the export market for American manufactures, Consul Robert J. Thompson, of Hanover, Germany, has outlined a plan to enable American manufacturers to make excursions to foreign commercial centers, following somewhat the practice of business men in certain cities of the United States, who, from time to time, organize extensive trips to different sections of the country in order to develop their domestic trade. The gist of the consul's remarks on this subject is to the following effect:

It is the practice in a number of chief American manufacturing cities to organize considerable parties or delegations of prominent manufacturers and merchants, generally under the auspices of manufacturing associations or boards of trade, which parties make tours of investigation into sections more or less remote from their distribution centers or bases of production. The visiting business men are entertained and sentiments of trade reciprocity are developed and exchanged. That these excursions are really productive of largely increased commercial relations between the sections of the country concerned is demonstrated by the fact that they are becoming more and more popular.

BENEFITS TO BE GAINED.

It is my desire to suggest the promotion, on the part of the steamship lines, in conjunction with American manufacturing associations and boards of trade, of such excursions from America to foreign countries. To this end care and study should be given the tour to make it successful. It should be conducted by experts and accompanied by prominent merchants and officials. Some of the benefits that may be gained by such a trip are an interesting, valuable, and pleasant voyage, educational advantages in the way of broadening the view of the American manufacturer, direct business secured and acquaintances established, the study of markets, needs, methods, and processes of foreign manufacturers and merchants, and the awakening of sentiments favoring reciprocal trade relations generally.

A preliminary and tentative programme should be made up. This could, for example, give the date of arrival at the foreign port, and starting from there give a list of cities to be visited, with their population, leading industries, financial importance, bank clearances and deposits, with illustrations of historic or unique features; also illustrations of large or important factories. If it were found advisable, after testing the sentiment of the American manufacturing and commercial world on the subject, the excursions could be divided into classes according to the several leading industries.

IMPORTING BRASS BEDSTEAD TUBES.

Consul Albert Halstead is informed that Birmingham is exporting to Germany considerable quantities of brass tubes for bedstead-making purposes, concerning which he writes:

These are chiefly the brass tubes that are used for covering the iron supports of brass bedsteads, but a small quantity of solid brass

tubes are also sent to Germany. It is also stated that in Cologne are several brass bedstead factories, and that the people of Germany are slowly becoming converted to the use of brass bedsteads, which have in the past been regarded as less desirable than wooden bedsteads. American brass bedstead makers might with advantage investigate the German market for the sale of their products.

HARZ CANARIES.

AN EXTENSIVE GERMAN INDUSTRY AND HOW IT GREW.

Consul Frank S. Hannah, of Magdeburg, sends the following information about the business of raising canary birds in the Harz Mountains of Germany:

The breeding and training to sing of the Harz canaries, a large number of which birds are forwarded to the United States, makes of interest the matter given herewith. The breeding and selling of canary birds in Germany, which has reached such proportions that it now controls the markets of the world, is conservatively estimated of a value of \$238,000. In St. Andreasberg alone 50,000 canaries are yearly raised for export. For an exceptionally good singer and breeder at least 300 marks (\$71.40) must be paid, and 100 marks (\$23.80) is often paid for a good so-called "Vorsaenger," a bird used to teach the younger canaries to sing by example. The normal price for good singers varies from \$2.86 to \$8.57. Absolute quiet and undisturbed intimate relations exist between the breeder and his birds. Similar conditions are attained by the Magdeburg breeders. Many of the so-called "Harz canaries" which are exported to the United States are bred in the city of Magdeburg, where some of the best singers are produced.

TRAINING METHODS.

The training of the young birds to sing correctly is one of the most important and laborious features of the breeder's activity. The young birds, learning by imitation for the most part, acquire bad singing as well as good, and, while it is the plan of the breeders that the birds should only hear the good singing of the "Vorsaenger," yet some of them naturally chirp and whistle in an unpleasant manner, and care must be taken that these birds are removed before the other birds have acquired the same bad habits and are rendered unsalable. The art of the breeder lies in his being able to discover the slumbering talent in the bird at an early age developing the same to its highest point of perfection in its particular line. Some birds show an especial talent for trilling, while others are remarkable for the beauty and variety of their song. The birds are divided into classes and kept in separate rooms, those having harsh and sharp voices being often placed in covered cages, where, instead of singing themselves, they are forced to listen to other good singers, through which their faults are often overcome. The better singers, after passing a certain stage where their habits are established and they do not require the close daily watching of the breeder, are taken into a room reserved for the best singers. The elementary training for the singer is generally finished by the end of November, and the singing is at its best at the beginning of January and again after the mating time.

The canary is in every way a house bird, and some people, with good

intentions of giving the bird a little fresh air, make a serious mistake by hanging the bird out of the window on the first warm spring day. The bird is not used to the outside air, as he and his ancestors have been raised for centuries in the house, and the only result of this well-intended kindness is a cold which results in partial, if not entire, loss of the voice. Canaries are very sensitive to drafts, and some singers, the results of years of careful breeding and training, have been ruined by a few moments' exposure by an open window.

The exports of canaries from this district for the calendar year 1905 was \$37,685 and for the calendar year 1906, \$40,048.

AUSTRIA-HUNGARY.

BOHEMIA'S TRADE.

ADVICE AND ADMONITION FOR MANUFACTURERS.

Consul Urbain J. Ledoux, of Prague, concludes a review of the business of his consular district for the calendar year 1906 with advice and admonition to Americans who desire profitable business relations with Bohemia. After quoting the concluding paragraph of his annual report for 1905, in which he declared that American manufacturers should send personal representatives to secure trade, Mr. Ledoux says:

Should I be asked to give advice regarding ways and means of doing business in Bohemia, I could but repeat the suggestions made in my last report, for conditions have not changed. The way to get business is to go after it. This applies to both domestic and foreign trade, but with particular force to the latter. You can not stay at home and expect letters, circulars, advertising, or even export agents to get the business for you. These methods are all useful and will help, but they are not sufficient to land the business. They do not go far enough. You must go out into the field yourself, or send your own experienced, well-trained men—the very best men you have.

It is not an easy, but a hard and discouraging job, and this is one of the first lessons that every manufacturer intending to enter the export trade should learn. It is unfortunate for the reputation of the exporters of the United States that so many manufacturers have rushed into this extremely difficult field with so little appreciation of the requirements and obstacles to be met and overcome. The result of such hasty and immature action has usually been a half-hearted effort, soon followed by discouragement and retirement from the field. This has so often happened that the foreigner has come to look upon Americans as lacking in determination and stability. He does not take us seriously, and naturally hesitates to disturb his existing connections by making alliances that have so little guaranty of permanency.

PRELIMINARY STUDY.

The first thing, and the important thing, therefore, for any firm contemplating extending business to foreign fields, is to carefully study the situation by sending out an experienced and competent rep-

representative to report on the ground. Find out what the trade requirements are, and what the competition is that you must meet. Then you can intelligently lay out your campaign, and not until then. There is no use going into the business unless you are willing to meet the special conditions and requirements that confront you. It is a waste of time and money to try to force goods and methods that, while they may be ever so successful at home, are unsuited to other lands.

I do not mean to say that we should not endeavor to create a demand for some article that is new, or introduce some methods that, while they are unknown, may be superior; but in doing so it will be necessary to adjust, as far as possible, our plans to suit first of all the dealer who handles the goods and then the customer whom we expect to use them. This means that our goods must be put in packages or sizes according to the measures of the country, and they must be packed in cases that will stand the long, hard haul that they are subject to in reaching countries beyond the seas. Our labels and all advertising and printed matter must be printed in the language of the people we cater to. Our quotations and our invoices must be made in the currency that the trade use. Our correspondence should also be conducted in the language and style used by the people we address.

CONDITIONS SHOULD BE RECOGNIZED.

Then there is the matter of terms, freights, insurance, and settlements. These are all of great consequence to the foreign buyer and have an important bearing on our transactions. Pains must be taken to select the quickest and cheapest transportation and to secure the most favorable rates, both for freight and insurance. Our terms should be as liberal as possible, and our banking arrangements must be simple and care taken that the charges are fair and reasonable. This is where the transportation companies and banking houses can give important assistance to their own advantage.

To carry out these special conditions means the establishment of a well-organized and thoroughly equipped export department, managed by a staff who make a constant study of this particular and difficult business. The foreign trade is as different from the home trade as day is from night, and if this difference is not recognized and met, better not undertake it. This applies specially to Bohemia, a country which offers extraordinary opportunity to American trade, but where business can be done only on the foregoing basis.

HOW BUSINESS CAN NOT BE DONE.

Mr. Ledoux in the following short paragraphs advises how not to do business in Bohemia:

1. By not studying the geographical situation of the country, its needs, resources, trade methods, etc., but simply having a vague idea that it is a land peopled by gypsies wanting but little—and already having it.
2. By staying at home and relying upon letters, circulars, catalogues (frequently with penalty postage), besides some advertising in trade papers, to bring business.

3. By writing in English to merchants understanding but German or Czech and loading them with English catalogues, circulars, quotations, etc., with American values and measures.

4. By forcing American methods upon a conservative people and ignoring their special wants and deeply rooted customs.

5. By a poor selection of routes and shipping agents, resulting in too slow or too costly deliveries, and defective packing, resulting in poor deliveries.

6. By forcing the Bohemian buyer to pay cash in advance, though he may enjoy the best of credits all over Europe.

7. Or by forcing him to buy from German agents in Berlin, Hamburg, or Bremen, or foreign "European agents" in London or Paris, whose ever special care is to load on their commissions.

8. And, finally, by continuing to practice a deplorable opportunism which completely ignores the foreign buyer in times of prosperity at home.

IMPORTS FROM THE UNITED STATES.

Bohemia absorbs about one-third of our total exports to Austria-Hungary, consisting mainly of such standard American exports as agricultural implements, sewing machines, typewriters, cash registers, phonographs, boots and shoes, office furniture and devices, novelties, canned products, hardwares, cotton, leather, tallow, and oils. Imports in certain lines have increased in spite of most injurious indifference, and new lines are being successfully introduced against discouraging odds of our own making.

EXPORTS TO THE UNITED STATES.

Exports to the United States from this consular district in 1906 amounted to \$2,323,186, against \$1,789,901 in 1905, showing an increase of \$533,285. The principal increases were: Beer, \$724,734, against \$544,370 in 1905; gloves, \$154,464, against \$39,859 in 1905; hops, \$320,313, against \$257,860 in 1905; glove leather, \$42,452, against \$22,970 in 1905; beet sugar, raw, \$67,532, against nil in 1905; beet sugar, refined, \$28,270, against \$7,083 in 1905; glassware, \$122,972, against \$111,407 in 1905; clover seed, red, \$42,200, against nil in 1905; siphon bottles, \$55,253, against \$28,620 in 1905; woolen goods \$25,865, against \$14,782 in 1905; and books, \$124,490, against \$74,841 in 1905. There was a decrease in the export of wool, \$31,729 against \$154,064 in 1905, and of chemicals, \$121,224, against \$123,235 in 1905.

The export trade to the United States from this consular district has of late been better organized. The Bohemian exporters, realizing the necessity of better understanding our needs, have been sending experts to the United States. These study our resources, the needs of our people, our way of doing business, besides strengthening old agencies and establishing new ones, and finding new customers. They realize that the way to get business is to go after it; and they generally succeed both in getting business and giving us excellent lessons in foreign trade methods.

ITALY.

COMMERCIAL PORTS.

CITIES WHERE AMERICAN GOODS MAY BE FURTHER INTRODUCED.

Special Agent A. B. Butman, in the following descriptive report on two leading Italian commercial cities, discusses a number of trading opportunities:

Genoa, with a resident population of 244,700, is the chief commercial city in Italy. The total number of vessels entering the port of Genoa during the year exceeds 6,000, with a tonnage of about 7,000,000. The United States was represented in the entered list in 1905 by 3 steam vessels with 6,266 tons, 1 of which vessels cleared with 2,310 tons. Great Britain was represented by 19 sailing vessels, 7,210 tons; and 756 steam, 1,466,954 tons, entered; and with 22 sailing vessels, 7,675 tons; and 742 steam, 1,451,162 tons, cleared.

Genoa's trade has marvelously increased during the past decade, owing to the rapid industrial progress in northern Italy. Compelled by the already enlarged trade and anticipating further increase, there was appointed in 1903 an independent harbor authority known as the "Consorzio autonomo," vested with necessary power to propose and execute needed improvements and extensions. The port at present includes an inner and outer harbor; the former with a water area of about 232 acres, with a varying depth of from 26 to 43 feet. The harbor contains 12 jetties. The water area of the outer harbor is about 247 acres, with a varying depth of from 29½ to 65½ feet. About 60,000,000 lire (lira 19.3 cents) have already been appropriated by the Italian Government for this work. The port of Genoa is the largest in Italy and vies with Marseille in importance.

The Government appropriates annually the sum of \$1,250,000 for public instruction in Genoa, and among the establishments for higher education are the University, from which degrees are granted only to Italian students; a Technical and Nautical School; High School of Commerce; Professional School for Girls, where students are fitted for administrative and commercial offices; Museo Civile Pedagogico, where instruction is given to pupil teachers in theoretical and practical teaching; and the Istituto Civico di Musica or School of Music. This shows the Italian awakening to the value of industrial and commercial education. In industries at Genoa the mineral and metal working are the most important. These give employment to 30,800 workmen in about 750 factories and workshops. The textile and lace industries employ 12,275 and the tobacco industry 1,025 people. Genoa also produces silver and gold filigree work and coral.

CHANCES FOR TRADE.

American goods of many kinds are found here, and this coast city affords a good market for their further introduction. The industrial progress of the Kingdom, especially in the north, and the advance of scientific agriculture, are creating constantly increasing demands for all kinds of machinery, machine tools, and agricultural implements.

A plan for demolishing a great number of old buildings, broadening streets, and constructing new edifices in Genoa has been adopted

and is now under progress. In an interview with a member of the syndicate, to which the carrying out of these works has been assigned, it was learned that a present demand exists for structural iron, tiles, engines, motors, and excavating machinery, to which American exporters are urged to give immediate attention. A plan of the works already undertaken, the completion of which will require several years, is forwarded [and will be loaned to applicants by the Bureau of Manufactures].

American stoves could be sold here (address of a firm desiring these already forwarded) and a good market might be created for the same. Some German stoves are on sale, but they are in many ways inferior and awkward, beside being expensive. For example, a German parlor stove, selling for \$38, seemed quite inferior to a like article of American manufacture sold in the United States for \$25. A reliable Genoese dealer states that considerable might be done with the United States in corn oil, fish oils, fish cakes, and bone greases or fats. No market at present is afforded for cotton-seed cake, owing to the prevalent use of other things for feeding purposes. It was stated that a large proportion of the cotton-seed cake now shown in Italian statistical importations is not used in the country, being reexported.

A cash register company of Ohio has opened a show room in Genoa for the exhibition and demonstration of their goods. This method of procedure has been generally adopted by this company and by various American typewriting manufacturers throughout European countries with excellent results. The amount of export business done by American manufacturers under the catalogue system is small compared to what might be accomplished by personal representation. A majority of the Italian retail traders have no understanding of mechanical construction, consequently the necessity for demonstration is obvious.

CHANGES WANTED IN MOTOR ENGINES.

The following letter from a Genoa concern is self-explanatory, calling attention to improvements desired in American motor-boat engines [the name and address of the company is on file at the Bureau of Manufactures]:

We find that an important point to criticise in the American motor-boat engines is the starting. Often they are large and heavy, and the starting handle being fixed on the engine direct, it demands too much force to get it going. On other engines, such as English, French, and Italian, there is a handle on the level of the elbow and geared so that it is an easy matter to start. Any motor manufacturer will know what we mean. The other day we had to make such a handle ourselves and fix it on an American engine. The magneto is also open to criticism. In American engines the magneto is run by friction on the fly wheel, and this, besides not being exact enough, makes it take too much space. In other engines it is run by direct gearing (cogs) on the engine and is incorporated in the engine so as to make one with it and not to occupy useless space. Then we find American engines only run with gasoline, etc., and not with kerosene, and as kerosene in Italy is a good deal cheaper this is a great point against American engines.

In the general appearance there is also much to be said. The finish often leaves much to be desired; for example, the bronze parts are often left rough and unpolished while competing houses always give the greatest attention to this, and, as this class of engines are often chosen for their neat and splendid appearance, buyers are frequently influenced by the eye more than by anything else. These are a few points we shall be glad to hear about from America. We are also open to do business in accessories and engines salable in this country although not in those of the Truscott type.

VENICE.

COMMERCIAL AND INDUSTRIAL LIFE OF THE CITY.

Venice is important from a commercial point of view, more especially as a port for goods in transit, the principal articles of import in the respective order of their values being wheat and other grains, yarns and manufactures of silk, woolen and cotton, raw cotton, oils, wines, and spirits, coal and other fuel, rough and finished metals, raw silk, cocoons and waste, and animals for slaughter. The principal articles of export are the same and in practically the same order of values, less a small per cent. The principal article of domestic export from Venice to the United States is hemp. This is produced in the various provinces as follows: Rovigo, 7,000 tons; Ferrara, 11,000 tons, and Bologna, 9,000 tons annually. Among the important agricultural interests of the district are the cultivation of beets and rice, the former being grown for their sugar properties. The average return of the beet crop is supposed to yield about \$35 to \$40 per hectare ($2\frac{1}{2}$ acres).

The manufactures of Venice are various. The Venetian glass industry finds its markets in all parts of the world. The output ranges from the thin and fragile objects to large chandeliers and mirrors, the latter wreathed in glass foliage and flowers. The factories for the manufacture of common and artistic glass and enamel number 11, giving employment to 5,000 workmen. Gold neck chains, known as Venetian chains, and other varieties of jewelry are extensively produced.

The lace industry is producing articles for export in large quantities to the United States, South America, and European countries. The industry is constantly growing, and the showrooms for this article around the Piazza of St. Mark, the principal square in Venice, are very numerous. The lace is principally made in the homes of the workers, this home industry engaging about 2,800 people. Another home industry of Venice is the making of fishing nets, in which 4,000 workmen are employed. Nine thousand persons are employed in the various textile industries and 500 additional in the manufacture of hand-wrought trimmings. Other local industries of importance are shipbuilding, manufacture of tobacco, furniture manufacture, the making of matches, chemical manures, candles, and soap.

AMERICAN TRADE OUTLOOK.

Few American-manufactured products are found in this city. I am not sure many could be successfully introduced, though there ought to be a good market for some, especially all kinds of manufactured food products, canned meats, etc. However, under the present trade conditions of middlemen and cash against documents, I can not report optimistically regarding a large increase along these lines.

The 150 canals which everywhere intersect the city of Venice, with their slow-going gondolas as conveyance, seem to afford favorable opening for the introduction of American motor boats. Some little time ago a Venetian was induced, through the efforts of the American consul, to assume the agency for these boats. Orders were obtained for six, according to descriptive catalogue, upon condition that one

boat be first shipped for inspection and demonstration. Information was received from the American manufacturer that the order could not be filled unless accompanied by cash. The Venetian, being unwilling to assume the responsibility, and each customer refusing to buy an article of which he knew nothing, further attempts at negotiation ended. The would-be agent, however, having become interested and convinced of the adaptation of motor boats to Venetian conditions, began manufacturing the same on his own account, the motors being supplied by a French firm. This instance is one illustration of the impossibility of at present convincing the foreign mind that the American requirement of cash with order or against document is really the best business system.

TRADE WITH EGYPT.

NEW COMMERCIAL ARRANGEMENT—GROWTH OF IMPORTS AND EXPORTS.

Consul J. E. Dunning, of Milan, reports that the Milan Chamber of Commerce is in possession of the Government report on the new legislation for a close commercial accord between Italy and Egypt, now before the minister of foreign affairs for approval. The consul continues:

This legislation is based on the commercial convention arranged between Italy and Egypt under date of July 14, 1906. It will undoubtedly be given full approval and immediately adopted. The text of the report discloses some interesting information on Italian export progress in the country in question. The imports from Egypt into Italy in 1900 amounted to \$2,170,000 and in 1904, \$3,300,000. The exports from Italy into Egypt in 1900 were valued at \$6,000,000, and in 1904, \$9,200,000.

The Italian exports into Egyptian ports are principally wines, olive oil, cotton yarn and textiles, raw silk, silk textiles, matches, furniture, sulphur, flour, and colored tiles and terra cotta. Raw silk and silk textiles are running at about \$1,600,000 out of the total annual shipments. Importations from Egypt are confined almost entirely to raw cotton for the Milan textile mills, the value of this import having risen from \$1,700,000 in 1900 to \$3,000,000 in 1905. Minor imports from Egypt are tobacco, rubber, skins, mother of pearls, and tortoise shell.

The most important clause for Italy in the new convention provides that the Egyptian Government will not put goods which are the product of Italian labor or of Italian industries under any import duty greater than 8 per cent ad valorem, excepting (a) Sweet and aromatic spirits not containing more than 56 grades of pure alcohol; refined sugar; and woods for construction purposes; these to be taxed on importations as high as 10 per cent ad valorem; and (b) Alcohol above 50 grades; petroleum; and cows and oxen; these to be taxed on importation as high as 15 per cent ad valorem.

FIXES CLASSIFICATIONS—FISHING RIGHTS AND SHIPPING.

The understanding between the two Governments is that these two special conditions are not to be in force with relation to Italy unless placed upon the importations from other countries. As a matter of fact, it appears that the tariff on most of these specially

classified articles is very much lower than the 10 and 15 per cent to which the Egyptian Government has the right to advance it. Confidence is expressed that the new arrangement will relieve both countries of a number of vexing questions of classification which have given trouble in the past, and that it will lead to a further development of that export trade which Italy is seeking assiduously in every corner of the earth.

A special section of the report deals with the attitude of the convention on the rights of fishermen of the respective nations in each other's waters. Without following exactly their lines, the convention in this regard has as a precedent the French-Egyptian treaty of 1902; the Greek-Egyptian treaty of 1906; and the commercial arrangements already existing between Egypt and Great Britain, Austria-Hungary, Belgium, and Germany. The report further pays particular attention to certain suggested plans to better Italy's merchant-maritime connection with Egypt.

SWITZERLAND.

TRADE STIMULATION.

DIRECT METHODS ADVISED—AMERICAN TRAVELERS WITH SAMPLES.

In seeking to stimulate direct trading between the United States and Switzerland, Consul R. E. Mansfield, of Lucerne, suggests that the commission on the \$11,000,000 of American products annually sold in the European Republic might be saved instead of going to foreign agents. The consul offers the following suggestions:

Take one item as an example. A considerable portion of Switzerland is covered with forests, the production of lumber and fuel from which constitutes an industry of some importance. Saws for cutting the timber and lumber are an important item in that branch of industry. Saws are not manufactured in Switzerland, and a large percentage of those used in the country are manufactured in the United States, practically all the cross-cut saws employed in cutting logs coming therefrom. Importations, however, are made largely through Hamburg, none coming direct. The same is true of saws used in the mills, most of which are of the kind known as upright. Some of the saws of this class sold in this market, however, are manufactured in Germany. They are of a cheaper grade, the American saw being universally recognized as a superior article, but the higher price asked for it enables the German manufacturers to find a market for the inferior article.

Various other instances might be cited to illustrate the extent to which American manufactures are imported indirectly to the Swiss market, such as builders' hardware, machinery, food products, and tobacco. Some leaf tobacco, which is used principally in the manufacture of cigarettes, is imported from the United States, but none of it comes direct; it is largely sold to Swiss manufacturers by German agents.

HOW TO WORK UP TRADE.

I recently made inquiry in some of the leading food-supply houses in Lucerne for certain American products, and asked if there was not

a demand for them in this market. The merchants admitted that there was some demand, but stated that solicitors or traveling salesmen for American firms seldom visit Lucerne; that the buyers are not offered samples from which to select or make purchases, for which reason they do not carry the American articles in stock. The same is true in other lines.

Perhaps it would not be practicable or profitable for American exporters or manufacturers to send individual traveling salesmen to Switzerland to solicit trade for each particular or special line of goods, but a combination of exporters representing various interests could establish say, at Basel, Zurich, Lucerne, or Geneva a central agency, a general distributing house. Traveling solicitors familiar with the language could then visit the various towns and cities in the country and work the trade here as it is done in the United States, or as it is done by the Germans. The commissions paid to the Hamburg agents would maintain the central agency, and by this method of direct dealing trade could be greatly increased in many lines.

American importers of Swiss manufactures send buyers to select styles, designs, and quality of goods which confirms the theory that direct communication between the seller and the buyer is a good business practice. Switzerland sells to the United States more than twice as much every year as it buys there.

CHAUX-DE-FONDS.

MERCANTILE OPPORTUNITIES PRESENTED.

Consular Agent E. L. Phillips reports on the commerce of Chaux-de-Fonds, Switzerland, as follows:

Situated in the Jura Mountains, with a population of 40,000, lies the city of Chaux-de-Fonds. Its fame as a watchmaking center is universal, millions of watches being turned out annually. Over three-fifths of the Swiss watch trade is centered here.

The declared exports to the United States during the year ended December 31, 1906, amounted to \$1,625,277, the chief articles being absinthe, asphaltum, automobiles, chocolate, and watches. There are scarcely any American goods sold in this district, except a few watch cases. The following articles bring good prices and should command a ready sale: Apples, boots and shoes, canned goods, dried fruits, novelties, typewriters, wooden ware, wringers, gocarts, etc.

Either Chaux de Fonds or Neuchatel would make a splendid distributing center for the sale of American goods. The freight rates from the United States to the former place via Havre, Antwerp, and other continental ports are \$5 to \$8 per 220 pounds, according to speed of steamer, for medium weight packages. Direct representation is the best means of building up business. A reliable agent, one who understands the French language, would no doubt succeed in working up a trade.

BUSINESS FIRMS.

LIST OF MERCHANTS—SCIENTIFIC APPARATUS.

Consul Edward Higgins, of Berne, furnishes lists of prominent Swiss dealers in various manufactures and supplies. These firms are located at Berne, Basel, Zurich, Geneva, Neuchatel, Schonenwerd, Aarau, St. Brais, Neuhausen, Winterthur, St. Gallen, Lausanne, and

other cities. The lines of merchandise handled by these merchants include boots, shoes, and leather, furniture and office supplies, factory supplies, musical and surgical instruments, machine tools and machinery, barbers' and plumbers' goods, automobile supplies, lumber, cotton, and tobacco, etc. Any of these dealers' names may be obtained from the Bureau of Manufactures.

Mr. Higgins states that the United States sold to Switzerland \$37,000 worth of the total \$164,000 of orthopedic apparatus imported in 1905. Of a total of \$700,000 worth of electrical apparatus for scientific purposes Germany furnished \$525,000, France \$96,000, and the United States only \$4,000. Scientific apparatus, other than electrical, is imported mainly from Germany and France; out of the total import of \$230,000 worth in 1905 the share of the United States was \$7,000. In machine tools America furnished \$55,000 and Germany \$390,000 out of a total of \$500,000.

BELGIUM.

TECHNICAL SCHOOLS.

MODERN INDUSTRIAL EDUCATION SUPPLIES SKILLFUL WORKMEN.

Consul J. C. McNally, of Liege, furnishes an interesting report on the results of technical and industrial education in Belgium. He writes:

The Kingdom of Belgium, with an area of about 11,000 square miles and a population of 7,000,000, presents an example of what a technical education coupled with a native thrift will accomplish. The country's expansion has been rapid, and its industrial and commercial progress places Belgium in the fifth place of the world's producing nations. While Belgium has always maintained its high standards in general industry and commerce, the modern demands have been met and the capacity of its inventive minds have kept pace with these demands and have in many instances forged ahead.

For the first six months of 1906 Belgium exported articles to the value of \$231,535,575, an excess of \$32,000,000 over the same period of 1905. This was due to the capacity of the producers to manufacture in a way successfully to compete with foreign competitors in the open markets of the world. This general capability extends from the director of the factory to the smallest employee. The elements that enter into this capacity are a prime quality, a continued output, and the power of the artisan to produce at the lowest possible cost. Nor is this standard of usefulness the result of accident. The Government, in full appreciation of the fact that upon the nation's exportations depends its prosperity, joins hands with the various industries, and by every material assistance, judicious legislation and the creation of technical institutions, opens new markets, helps the production and establishes a high standard of skilled labor.

DOMESTIC TRAINING SCHOOLS.

The prosperity of Belgium, which is advancing rapidly from year to year, is undoubtedly due to the technical teaching, which is prominent in the diversity and numbers of its institutions. These schools,

created and maintained by the Government, are under the general supervision of the department of commerce and labor, which appoints a board of general supervisors whose duty it is to see that the teaching is of a high standard as well as to oversee the sanitary and hygienic arrangements of the various schools. Belgium enjoys the distinction of being the first country to organize domestic training schools, the first being established in 1889.

This system comprises in its practical curriculum, maintenance and cleanliness of dwellings, furnishings, laundry work, cutting, fitting, making, and repairing of ordinary garments, cooking, and in the rural districts gardening, dairy work, and the care of poultry. The theoretical teaching consists of lectures on hygiene, domestic economy, care of children, and sick nursing. This particular training is intended for the children of the working classes, the object being to prepare the pupil for the economical management of a house as a housewife or a servant. In the more advanced schools, termed professional domestic schools, the theoretical and practical teaching are equal, and includes designing, cutting, dressmaking, millinery, artificial flower making, lace making, embroidery, china painting, commercial bookkeeping, stenography, typewriting, domestic economy, etc. The practical effect of this system not only enables a girl to gain a livelihood by the application of her knowledge in the various branches taught, but is particularly emphasized in housekeeping and the higher service. While the Government has legislated against the employment of women under ground, they assume important places in the large manufactories, and work side by side with the male employee, demonstrating equal ability. Many of the large workshops give technical lectures and demonstrations expressly for the female employee who is unable to take advantage of the technical course offered to boys.

TRAINING OF BOYS.

In training boys for professional and industrial work, attention is given to the demands of the various localities. The various schools are as follows: Mechanical and electrical engineering, iron and steel, wood cutting, carpentering, joining, plumbing, watch making, jewelry making, firearm manufacturing, bookbinding and gilding, painting, designing, engraving, spinning and weaving, dyeing, tanning, basket making, lace making, upholstery, tailoring, wood sculpture, telegraphy, music, etc. While the practical work of these institutions is the same as in the actual workshops, the theoretical training is intended to meet what the workshop does not supply.

Apart from the Government technical training schools, private institutions are inaugurated and are partly maintained by private subscription. These, however, draw liberally from the Government.

Liege since the fourteenth century has been universally known for its manufacture of firearms. It has kept pace with the various evolutions in this industry. The well-known School of Arms in Liege turns into the local workshops yearly young men already fitted to apply themselves practically to any branch of the firearm trade. One of the practical requirements before graduation is that the pupil must not only be able to make any of the various parts of a gun, but must assemble these parts with facility. In theory and practice they are as perfect as age will permit, and yet they must enter the factory in the

capacity of an apprentice and await the recognition of the foreman. This system of education forms a capability that is sought for by many countries, and the workmen graduating from the School of Arms can readily find work either at home or abroad.

Many practical gunsmiths have attached to their homes a small workshop, where during their spare hours they work under the piece-work system and are therefore enabled to earn extra compensation. This class of labor is always in demand, and at no time need the fire-arm workmen be out of employment.

TEXTILE INSTRUCTION—LABOR CONDITIONS.

The School of Textiles is an institution whose teaching has brought the manufacture of cloth and all branches attached to that Belgian industry to a high state of perfection. Year after year the cloth manufacturers in other countries apply to this school for a competent man to serve them as foreman or superintendent. At home the graduates of this institution are immediately taken up by the local manufacturers and their future is guaranteed. The Government, to encourage application, gives yearly a money prize to pupils having a certain percentage in their studies, which is called a "traveling purse," and is intended to meet the expenses of a journey abroad. The same conditions prevail at the School of Mining and all the other schools. The Government selects graduates from the various technical schools to act as heads of departments as well as of the various other work under the Government.

Technical education in Belgium has for its object to assist the employer and employee alike. The present condition of both is highly satisfactory, and the future points to a substantial advancement. The country is tranquil, the workmen are increasing their savings yearly, a spirit of contentment is everywhere manifest, which condition guarantees uninterrupted labor. Lockouts and strikes are rare, while the question of the unemployed is absent. All workmen are more or less skilled, and their labor wins a compensation satisfactory to them. The continued industrial and commercial advancement of Belgium stimulates the demand for labor; and the labor, thanks to technical education in all branches, readily meets these demands.

MARKETS OF EUROPE.

POSSIBLE ENLARGEMENT OF AMERICAN TRADE THEREIN.

The following report concerning the conditions which prevail in the markets of Europe and the means to be taken for the enlargement of American trade therein has been supplied by Consul McNally:

In view of the apparent awakening of American manufacturers to the commercial and industrial importance of European markets as outlets for surplus products, I would reiterate for their guidance the usual demands of the trade, the obstacles to be overcome, and the competition to be reckoned with before profitable results can be expected.

European business rivals in all branches of commerce and industry are alive to the importance of an extensive business invasion into European fields and the depressing effects it will have upon their own enterprises. That there exists a universal feeling of opposition

to the appearance of American products in the European markets is beyond doubt; that such a feeling has prompted suggestions of commercial alliances and confederations to urge upon the various countries the necessity of such legislation as will effectually bar out our products is true, and the delay in further action is not an indication of abandoning the idea, but rather because no practical system has as yet been suggested that will prove satisfactory alike to the business men of all the European countries. While the parent idea is not as yet capable of fruition, the attempts on the part of our competitors to minimize the quality and capacity of our products and criticise our business methods has in some instances been successful.

TRADE USAGES OF THE SEVERAL COUNTRIES.

While proximity lessens the shipping expenses, with the advantage with the local manufacturer, the markets are otherwise open to the world's competition. A speedy compliance with demands of local trade in every detail, and more particularly when such demands are met by the European competitors, has more to do in insuring sales than the price or quality of the goods. To group all the countries of Europe under one standard, and to attempt to supply the market generally from that point, will undoubtedly prove disastrous. Each country has its traditional leanings toward some peculiarity in manufactured articles, whether it be in cut, style, finish, delicacy, strength, or capacity.

The Old World is conservative, and it must not be expected that the tastes and customs which have prevailed for centuries can be changed in a day, nor do our foreign competitors antagonize or attempt to revolutionize these conditions until a pressing demand is manifested. To intelligently learn the wants of the trade, as well as to gain an intelligent idea of the obstacles that must be met and overcome in the European markets, a careful survey must be made by a person on the ground. Long-range inspection, or the idea that the prevailing conditions in Belgium or France are practically the same as in Germany, England, Austria, etc., is an erroneous one. Even the demands of the different sections of the same country differ in some degree.

The competition among our foreign business rivals will always be keen because of the immediate necessity to find markets for their products and to maintain the same at all cost. The concessions made to the buyers of one country by the manufacturers of countries bordering thereon has engendered a competitive spirit that must be considered.

HOW EUROPEAN MANUFACTURERS OPERATE.

Every European market of any great value is covered by representatives of the leading European manufacturers empowered to win trade by extraordinary concessions, whether it be in the term of credit, price, or special manufacture. There exists no business method with which the European manufacturer is not acquainted. Competition to-day is keener than ever before. Experts are sent into the various markets periodically to investigate the trade and further opportunities for its development, as well as to learn the latest tactics of their rivals. Young men, either sons, relatives, or employees, are sent into various countries to serve in business

capacities that will later on fortify the export department of the firms by whom they were sent to those several countries. Much can be expected from a personal interview with the hoped-for customer and to learn first-hand what he wants. He is anxious to sell your goods if he can do so with profit, but the chances are small that however good foreign products might be they will never find place on his shelves unless a personal effort is made to get them there.

Apparently indifferent to the advice of the consuls as to the inutility of the catalogue system of advertising, American manufacturers continue to flood the consulates with pictorial and expensive reading matter in praise of their wares, which after all is only self-praise.

CREDITS—PERSONAL INVESTIGATION.

Credit is a matter that will always cut an important figure in the sale of our products abroad. Competition in this line is growing as keen as in the price and quality. The American system of attaching a draft to a bill of lading, or drawing at thirty or sixty days' sight, does not meet with universal favor. Foreign manufacturers have no fixed rule regarding credits unless they enjoy a monopoly. Credit will always be lengthened if that is the consideration for a large order. Some manufacturers charge interest on the accounts if the term is long, and if they can sell under these conditions, but that can be set aside if objected to.

To those earnestly contemplating entering the European markets I would suggest that they become thoroughly acquainted with the conditions of the different countries, the peculiar and particular demands of the trade, and study the same by actual observation and not be wholly influenced by reports from the various countries. A personal investigation will open the eyes of the contemplating exporter to difficulties not thought of before. Gain the confidence and good will of the customer, treat his first trial order with the same attention as if it were for a million dollars. Follow samples carefully, and, above all, meet fully your representations and responsibilities. Always remember that the article itself is a potent factor in influencing sales, while a competent person, capable of demonstrating its merits in a language intelligible to the local dealer, is a powerful cooperation. Our manufacturers must disabuse their minds of the idea that the American article is always superior to that of European make. Great mechanical skill is now everywhere noticeable, and if the American system of manufacture excels, an early effort on the part of European manufacturers will be made to adopt the same. American systems in all branches are well known abroad, the channel of information no doubt being the young men sent to the United States to look up such information. It is necessary to have at hand a precise knowledge of the foreign markets and a desire to meet them in a conscientious way if we hope to establish a lucrative foreign business.

GREAT BRITAIN.

LONDON'S MARITIME TRADE.

NUMBER OF VESSELS AT THE PORT FOR LAST YEAR.

Consul-General Robert J. Wynne furnishes the following statement showing the number and net tonnage of British and foreign sailing and steam vessels that entered and cleared from and to foreign countries and British possessions, and coastwise, at the port of London, during the year 1906:

	Entered.		Cleared.	
	Number.	Tons.	Number.	Tons.
Foreign countries and British possessions	10,824	11,222,542	8,038	8,185,400
Coastwise	16,492	6,373,773	19,687	8,342,368

The following shows the number and nationality of foreign vessels which cleared to foreign countries and British possessions:

Nationality.	Number.	Nationality.	Number.
Russian	208	Spanish	80
Swedish	176	Italian	14
Norwegian	624	Austro-Hungarian	4
Danish	108	American	9
German	761	Other foreign nationalities	20
Dutch	1,398	Total	3,933
Belgian	366		
French	170		

MUNICIPAL ECONOMIES.

DISPOSAL OF REFUSE AND SEWAGE AT NOTTINGHAM.

In the following letter Consul F. W. Mahin describes the success attained in the disposition of waste in a British city:

Ashes, kitchen scraps, and house refuse generally in Nottingham are placed in metal barrels or larger receptacles at the rear of the premises and removed weekly by city employees. The total weight of this refuse is about 1,500 tons a week. It is burned in two city refuse destructors. This requires no other fuel except a trifle for starting the fire on Mondays, and enough steam is produced by the destructors to provide electricity for a third of the needs of the tramway system. Some of the electricity is also used for lighting purposes. Only tin cans and the like are separated from the refuse and sold. All the rest is destroyed.

The city owns two destructors, costing, respectively, \$38,932 and \$102,196. The more expensive one is equipped with electric machinery costing \$12,166, connected with the tramway lines. The cost of wages and other expenses of the destructors averages about 35 cents a ton of refuse burned. The average quantity of electric units produced is 44.23 per ton. Though the system of converting refuse into electricity works admirably here and is a saving to the taxpayers, it is stated that only forty other towns in the country use anything similar.

Besides electricity the Nottingham corporation produces from the

house refuse more street-paving stones than it can use. A plant connected with the main destructor mixes the clinkers with cement and places the composition under hydraulic pressure. The product is said to be even harder than stone and can be used for building purposes as well as street paving. The operation, being new, is still somewhat experimental, but the engineer in charge says the product will wear longer than the paving stones commonly used, while costing the city less than half as much. Another destructor, larger than either of the two now operating, is contemplated by the city authorities.

The sewage of Nottingham is spread upon a farm of 1,894 acres about 5 miles from the city. The land, having a gravelly subsoil, is well suited to filtration. About 10,000,000 gallons of sewage are run upon the farm every twenty-four hours. The total annual expense of the farm is about \$80,000. The total income from the farm amounts to substantially the same.

NEW APPRENTICESHIP SYSTEM.

BRITISH COMPANY ESTABLISHES A COMPREHENSIVE SHOP STUDY.

According to Consul Mahin a firm at Lincoln engaged extensively in the manufacture of agricultural and other machinery has introduced a variation of the apprenticeship system which is attracting wide attention and favorable comment, concerning which he writes:

The rule in this country is to bind a boy for seven years, from the age of 14 to 21, during which period he leads a narrow, treadmill life. The Lincoln firm, however, takes apprentices at any age between 15 and 22—one inducement to this change being the expectation that boys of 16 to 18 will have had a good school education and will therefore be better fitted than a boy at 14 to master the trade. To encourage boys at 16 to 18 years to become apprentices, the same wages will be paid them as if they had begun at 15.

But the most important part of the Lincoln firm's new apprenticeship system is to give all deserving apprentices a varied shop experience, and to supplement the shop work with courses of instruction bearing directly thereon. By combining mental training with shop work it is believed that more intelligent workmen will be evolved than under the old system. The general scheme is thus outlined:

Apprentices will be moved from one class of work to another at the discretion of the firm. Diligence, skill, and proficiency will be held to constitute a claim for transference to another class of work. Keeping a boy on routine work simply because he has become skillful at it will, so far as possible, be avoided.

All apprentices are under a superintendent, whose sole duties are to supervise, teach, promote, and advise. The firm maintains its own school in the works, and all apprentices can attend classes free; books and utensils are provided by the firm. Officials of the firm take part in the work of teaching the apprentices, and in general deal with subjects in which they are specialists. It is among the duties of the superintendent to prevent an apprentice from "drifting" through the works, to protect boys from favoritism or the opposite in the works, and to report to the firm cases of merit or demerit.

TURKEY.

MUSICAL GOODS.

SALE OF PIANOS AND OTHER INSTRUMENTS AT CONSTANTINOPLE.

Consul-General Edward H. Ozmun reports on the market for musical instruments in Constantinople as follows:

The introduction of pianos into this market dates back thirty-five to forty years. Two French makers were the pioneers. Other French makes also had an important and regular sale for about twenty years. During the last fifteen years, owing to the influx of the German piano, these French sales have diminished to not more than 200. A German oblique-strung piano of good sonorous tone and solid construction, selling for about \$130, has a ready market. A cheaper instrument, but of good appearance, is also sold at about \$110. While the French makers are able to hold their own in the sale of the higher grade instruments, they are outdistanced by their German competitors in the cheaper instruments, which are the most in demand. The French oblique-strung piano costs a little more than the similar German instrument and suffers in competition in consequence. A dealer tells me that there is a growing prejudice against the French piano, in that the woodwork is susceptible to destruction by worms, while the German is not. The vertical-strung piano is now difficult to sell.

The German makers, who now practically control this market, offer six, nine, and even twelve months' credit, and only on these terms could any share in the trade be obtained. There are two principal dealers, both purveyors to the Imperial Palace [addresses on file at the Bureau of Manufactures]. Sales of violins do not exceed 150 a year, and are imported from France, Italy, and Germany. Mandolins of Neapolitan make have a ready and considerable sale. Guitars from Italy have also a considerable sale. Other stringed instruments have a limited sale. There are but two or three orchestras of music halls in the city. The professionals number about 100 all told, apart from the military bands. Orders for wind instruments for the latter are placed by the Government direct, principally with Austria, owing to low prices.

There are no instruments manufactured in Constantinople. The climate, it must not be forgotten, is not suitable, as the shores of the Bosphorus are inclined to be damp. There is but one piano player on the market, which is retailed at \$220. This price is considered too dear and sales are insignificant. There is a large sale for talking instruments and accessories, but this market draws its supplies from Germany, even of the higher-priced American machines. The principal sale of records are those of Turkish melodies, reproduced by a German firm.

ADRIANOPLE.

ELECTRIC LIGHTS AND TRAMWAYS PROPOSED.

Vice-Consul-General William Smith Lyte, of Constantinople, makes the following report on proposed improvements at Adrianople:

An application for a concession for the supply of electricity which was made to the local authorities has been favorably reported

upon. The ministry of public works has, however, decided to invite tenders for the work. Adrianople, the capital of Roumelia, for some time the capital of the Empire (1360-1455), is at the present day less populated than Smyrna and Salonica and of less commercial importance than these cities. It has a population of over 80,000 inhabitants. It is situated on an eminence at a spot where the rivers Tundja and Arda, which traverse Eastern Roumelia, meet the river Maritza, and is the natural emporium for goods to be shipped through the port of Dedeagatch.

Adrianople has several factories for making cloths, hand towels, and silk spinning, also flour mills, distilleries of water and attar of roses. Its principal exports are silks, cocoons, grain, wool, and skins. Its imports are cotton, woolen, and silk stuffs, leathers, provisions, sewing machines, etc. The country surrounding Adrianople is exceptionally fertile, but the inhabitants are indolent. Adrianople is a first-class station on the Oriental Railway to Bulgaria and Europe and is connected with the branch lines Dedeagatch-Salonica and Yamboli-Bourgas.

NORWAY.

THE LIQUOR LAWS.

NEW SYSTEM ESTABLISHED—DECREASE IN CONSUMPTION.

Consul F. S. S. Johnson, of Bergen, reports on the liquor license laws of Norway as follows:

The Samlag system in Norway gives power to municipalities to grant all the retail spirit licenses which it deems necessary to a company, which would bind itself to carry on the traffic in the interests of the community, with a fixed annual return of not more than 5 per cent on its paid-up capital. In establishing the system the question of compensation does not appear to have presented much difficulty. When the Samlag was introduced two kinds of licenses were in existence, (1) those granted annually or for a term not exceeding five years, and (2) privileged licenses granted for the life of the licenser. In the case of the first, no compensation whatever was paid to those dispossessed of their licenses. In regard to the latter, compensation was granted in the form of an annuity equal to the average yearly profits for the three years preceding the suppression of the license. This provision is still in force.

With these provisions the aims and principles of the Samlag are summarized as follows: The elimination of private profit and securing the monopoly value for the public; insuring highest quality of liquors sold; the reduction of the number of licenses; the easy enforcement of the law; the destruction of the power of the spirit trade, and the furtherance of all progressive measures of reform. The allotment of the profits in Norway at present are as follows: To the State, 65 per cent; to the municipality in lieu of larger license duties now abolished, 15 per cent; and to objects of public utility not being chargeable on the rates, but operating as counter attractions to the public house in towns, 10 per cent, and in the surrounding districts, 10 per cent.

The combined capital of all the Samlags in Norway in 1904 amounted to \$155,000, and it has never been more than \$190,000. The profits of the trade, even under these restrictions, have contributed since the establishment of the system \$7,000,000 for objects of public interest. During the past eight years the proportion accruing to the State has been increased and set apart till 1910 to form the nucleus of an old-age pension fund, which now amounts to \$2,500,000.

The most remarkable fact in the history of Norway sobriety is that while the population increased by about 60 per cent during the period 1851-1905 and the imports per inhabitant by about 300 per cent, and the exports by about 200 per cent, the consumption of alcohol per inhabitant decreased by about 45 per cent. The decrease in the consumption of alcohol per inhabitant was most marked between the years 1871 and 1905, during the Samlag period.

RESOURCES OF SPITZBERGEN.

VALUABLE ANIMAL PRODUCTS SECURED—AMERICAN INVESTMENTS.

Consul-General Henry Bordewich calls attention to the growing value of the unclaimed Spitzbergen islands lying in the Arctic Ocean between Franz Joseph Land and Greenland. Mr. Bordewich writes from Christiana, Norway:

When the Islands of Spitzbergen were first discovered by Dutch sailors in the year 1596, they were found to be without inhabitants, but abounding in game and fish. A station was built at Smeerenberg on the southeasterly coast of what is now known as Dane Island. Dutch whalers visited the islands in great numbers for a long time; as time passed Russian, Norwegian, British, Swedish, and Danish fishermen and hunters also found the remote region worth visiting.

Of late years the Norwegians are the people who pay most attention to this field. In the year 1906 six different Norwegian whaling expeditions, with crews aggregating 420 men, made their stations there. Besides these, a great number of smaller craft from towns of northern Norway visit the islands every summer, hunting and fishing; some hunters also pass the winters there. The cargoes brought home consist principally of oils, furs, and eider down. The aggregate yearly outcome is estimated at about \$500,000.

A few years ago it was discovered that coal of fair quality appeared in different localities. Experimental mining has been conducted by several parties, and the past winter no less than three well established and equipped expeditions, aggregating more than 150 men, remained in the islands. In the largest of these considerable American capital has been invested.

DESTRUCTION OF GAME—LACK OF GOVERNMENT.

Game, such as reindeer, polar bears, ptarmigan, geese, ducks, and other birds are still fairly plentiful in the islands, but as no one is in control the animals are being wantonly exterminated, being killed at all seasons of the year. One of the visitors up there last summer reports that a party of tourists killed upwards of 100 reindeer, leaving the carcasses where they fell, only bringing away with them a few of the finest heads and antlers for mounting. The eider duck is so tame while hatching that it often may be lifted by hand while

the nest is robbed of down and eggs. In Norway stringent laws have been enacted in protection of this valuable and graceful bird.

It is stated on good authority that the walrus by this time are nearly extinct, the white whale which formerly was very abundant, is becoming scarce, the numbers of seals and polar bears are largely reduced, and that the reindeer and birds are being hunted at all seasons and becoming exterminated.

No nation has as yet taken possession. It would seem high time for the countries most directly interested to come to an understanding, whereby the islands, including Bear Island, either were formally turned over for annexation to one certain power, or else that a combination of the powers would make arrangements whereby law and order could be maintained, game and fishery laws made and enforced, and mining claims protected. The prospect for paying coal mining is good, and the claim is made that indications of valuable minerals are present. Tourist steamers of different nationalities visit the islands every season.

The climate is claimed to be quite fair, considering the high latitude. A clear sky is said to prevail week after week in the summer season. The warmest part of the year is the first half of August, when the thermometer sometimes reaches 16 degrees Centigrade [60 degrees Fahrenheit]. The interior of the islands is little known, being difficult of access owing to glaciers and mountains. Violent storms, with snow, sleet, and rain, are frequent, except during the short summer.

SWEDEN.

FOREIGNERS MUST OBTAIN PERMISSION TO CARRY ON TRADE.

According to a recent report from the British consul at Stockholm, before a foreigner can carry on trade in Sweden he must file an application for permission with the "Oferstathaller Embetet," Stockholm, and with the governor (Landshofding) of the province concerned, but it rests with the King whether such permission shall be granted. The application must contain the name of the city or place where the trading business is to be carried on, and be accompanied by a certificate showing that the applicant is of age and of an unblemished character. It must also be accompanied by a bond issued by a solvent party guaranteeing or giving security for the payment of taxes and rates for three years. In addition, some reliable credentials should be produced to meet such further inquiries about the applicant as the proper authorities may choose to make. These credentials should be in duplicate, at least, and signed and sworn to by some person occupying a position entitling him to confidence.

ASIA.

EMPIRE OF JAPAN.

FOREIGN TRADE.

A DECREASE IN IMPORTS AND INCREASE IN EXPORTS.

The following statistical review covering the foreign commerce of Japan for the years 1905 and 1906 is prepared from figures published by the Japanese Official Gazette, and transmitted by Ambassador Luke E. Wright, of Tokio:

The value of the imports in 1905 was \$243,291,900 and in 1906 \$208,562,900, showing a decrease of \$34,729,000 last year. The exports for the same years amounted to \$160,123,700 and \$210,987,100, respectively, showing an increase of \$50,863,400 in 1906. The increase in exports and the decrease in imports made a favorable balance of trade for Japan last year of \$2,424,200, the first balance showing an excess of exports over imports since 1895. In 1905 the imports were \$83,158,200 in excess of the exports. This is considered a very favorable showing for Japanese trade in 1906. The composition of the trade of Japan in the two years under review was as follows:

Imports.	1905.	1906.	Imports.	1905.	1906.
Machinery and materials for productive purposes:			Luxuries:		
Cotton, raw.....	\$55,090,400	\$41,165,600	Muslin de laine.....	\$1,527,200	\$1,330,600
Cotton yarns.....	847,600	2,319,000	Woolen cloths.....	5,418,000	5,611,000
Wool.....	4,157,100	4,568,900	Shirtings and cotton prints.....	4,796,600	5,699,000
Flax, hemp, jute, and China grass.....	1,672,500	1,680,300	Cotton satins and velvets.....	1,426,400	1,444,700
Iron nails.....	1,299,500	1,305,300	Sugar, brown and white.....	6,825,700	11,815,800
Rails.....	469,600	1,103,700	All other luxuries.....	20,600,500	18,006,000
Iron, bar and rod.....	3,584,500	2,854,500	Total.....	40,594,400	43,907,100
Iron pipes and tubes.....	1,064,500	995,000	All other products:		
Iron and steel, other.....	9,348,500	8,201,200	Rice.....	23,901,200	13,083,500
Indigo, dry.....	1,409,300	2,214,700	Beans, pease, and pulse.....	5,275,800	4,848,000
Paper, except Chinese.....	3,156,100	3,194,400	Flour, wheat.....	4,955,900	4,079,100
Leather, sole and other.....	6,997,100	1,499,600	Kerosene oil.....	6,012,900	6,188,900
Machinery and engines.....	10,419,900	9,315,000	Oil cake.....	5,567,500	7,748,900
Locomotives, and passenger and railway freight cars.....	2,179,800	1,450,800	All other.....	19,533,600	17,258,800
Steamers.....	3,815,000	867,800	Total.....	65,246,900	53,107,200
All other.....	31,939,200	28,812,800	Grand total.....	243,291,900	208,562,900
Total.....	137,450,600	111,548,600			

Exports.	1905.	1906.	Exports.	1905.	1906.
Manufactures:			Partly manufactured goods—Continued.		
Silk tissues.....	\$14,279,000	\$16,571,600	Straw plaits.....	\$1,906,000	\$1,779,300
Silk handkerchiefs.....	2,436,600	2,799,800	Tea.....	5,271,100	5,367,000
Cotton tissues.....	5,723,000	7,776,400	Camphor.....	1,278,000	1,809,200
Towels, Turkish, honeycomb.....	800,000	1,082,400	All other.....	17,006,600	24,030,000
Matches.....	5,159,800	5,436,200			
Mats and matting, floor.....	2,533,400	2,903,200	Total partly manufactured goods...	80,901,100	108,463,800
Porcelain and earthenware.....	2,651,600	3,953,200	Raw materials:		
Lacquered ware.....	614,600	856,900	Coal.....	7,205,500	8,112,500
Umbrellas and parasols, foreign style.....	788,200	892,600	Rice.....	1,557,200	1,835,000
Cigarettes.....	1,539,900	883,100	Cuttlefish, dried.....	1,074,700	1,105,200
All other manufactures.....	15,782,400	22,960,900	Seaweed and cut seaweed.....	721,700	913,600
			Mushrooms, dried.....	517,500	599,900
Total manufactures.....	52,308,300	66,116,300	Copper, coarse and refined.....	7,992,300	12,502,400
			Fish oil.....	375,300	609,300
Partly manufactured goods:			Vegetable wax.....	400,600	544,100
Silk, raw.....	35,778,300	55,000,600	All other.....	7,169,500	10,185,000
Silk, Noshi, and Kibiso.....	3,104,200	2,896,100	Total raw products.....	27,014,300	36,407,000
Cotton yarns.....	16,556,900	17,581,600	Grand total.....	160,123,700	210,987,100

The exports of gold and silver coin and bullion in 1906 amounted to \$12,840,649, an increase over 1905 of \$4,695,979; imports of same last year amounted to \$23,511,172, an excess over 1905 of \$7,820,700. The shipping statistics for the two years were as follows:

	Entered.		Cleared.	
	1906.	1905.	1906.	1905.
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
Japanese ships.....	7,332,392	1,839,108	7,323,690	1,849,817
Foreign ships.....	11,746,830	12,533,975	11,723,344	12,346,068
Total.....	19,079,222	14,373,083	19,047,034	14,195,825

IMPORTS AND EXPORTS, BY COUNTRIES, IN 1906.

Countries.	Imports.	Exports.	Total.
United States.....	\$33,758,300	\$62,317,700	\$96,076,000
China.....	27,722,100	59,886,000	87,608,100
United Kingdom.....	51,068,300	10,737,900	61,806,200
British India.....	31,453,300	5,194,100	36,647,400
Germany.....	21,069,200	4,088,300	25,142,500
France.....	2,509,600	19,513,600	22,023,200
Korea.....	3,346,200	12,253,000	15,599,200
Hongkong.....	346,300	13,554,900	13,901,200
Dutch India.....	11,949,200	776,300	12,725,500
Russia in Asia.....	734,700	5,566,000	6,300,700
Belgium.....	5,123,600	874,300	6,003,900
Italy.....	360,700	5,018,700	5,379,400
Australia.....	2,076,400	2,219,000	4,295,400
French Indo-China.....	8,974,400	73,600	4,048,000
Straits Settlements.....	1,265,400	2,029,200	3,294,600
Canada.....	397,400	2,155,760	2,553,100
Switzerland.....	2,298,500	8,700	2,807,500
Austria-Hungary.....	1,411,000	682,300	2,093,300
Siam.....	1,669,300	116,800	1,786,100
Philippine Islands.....	575,900	739,700	1,314,600
Egypt.....	890,000	184,700	1,074,700
Netherlands.....	623,200	114,700	737,900
Sweden and Norway.....	684,300	2,300	686,600
All other countries.....	3,259,300	2,885,600	6,144,900
Total.....	208,562,900	210,987,100	419,550,000

TRADE OF THE UNITED STATES WITH JAPAN.

According to the returns of the Bureau of Statistics at Washington, the trade of the United States with Japan during the calendar years 1905 and 1906 was as follows: Imports, \$50,703,377 and \$64,791,485, respectively, an increase in 1906 of \$14,088,100; exports, \$55,757,868 and \$34,405,978, respectively, a decrease in 1906 of \$21,351,890.

Of the increase in the imports from Japan, that in raw silk amounted to nearly \$11,000,000 in the total increase of \$14,088,100. This bears testimony to the activity of the silk industry in the United States. The other imports in which increases occurred were copper bars and ingots, tea, china and porcelain, etc. The copper imports amounted to \$1,146,276, against nothing in 1905.

The largest decrease in exports to Japan in 1906 occurred in raw cotton, \$4,450,976. Although the exports of cotton to Japan in 1906 were less than in 1905, they were more than double those of 1904. Full details of the trade with Japan for the calendar year 1906 are not available, but the following statement shows the exports of the principal articles thereto for that year compared with 1905:

Articles.	1905.	1906.	Articles.	1905.	1906.
Canned beef.....	\$1,318,623	\$15,627	Mineral oil.....	\$3,083,373	\$4,456,211
Railway carriages and cycles.....	1,993,388	531,057	Paper and paper manufactures.....	496,638	991,234
Clocks and watches.....	265,125	471,353	Paraffin and paraffin wax.....	504,298	481,091
Cotton, raw.....	15,534,773	11,083,797	Sole leather.....	3,406,774	482,906
Cotton piece goods.....	828,322	72,573	Steel rails.....	305,883	722,245
Electric machinery.....	1,239,878	960,146	Tobacco, leaf.....	962,180	629,427
Flour.....	6,014,843	3,390,623	All other articles.....	16,116,313	8,447,233
Builders' hardware.....	253,872	294,155			
Scientific instruments.....	277,962	425,672	Total principal articles.....	55,576,868	34,405,978
Locomotives.....	3,023,673	950,628			

ACTIVE INDUSTRIES.

THE EXTENSION AND PROFITS OF COTTON SPINNING MILLS.

Consul-General H. B. Miller, of Yokohama, forwards the following extracts from the Japan Chronicle showing the progress of cotton spinning and the formation of new industrial enterprises in the Empire:

Returns published by the Japan Cotton Spinners' Association show that the number of spindles in the mills of the spinning companies belonging to the association stood at 1,609,120 at the end of 1906. The number of weaving looms was 9,601, an increase of 456 as compared with the figures six months previous. Over 100,000 spindles are being added, or are projected, and, in addition, there are some new companies which are not included in the list. These are the Toyo Boshoku Kaisha, with 30,000 spindles, the Taisei Spinning Company, with from 40,000 to 50,000 spindles, the Silk and Cotton Spinning Company, with 20,000, the Ehime Spinning Company, with 5,000, the Nankai Spinning Company, with 10,000, and the Yasukawa Spinning Mill, with 30,000. When these spindles are all included, the total number of spindles in Japan is estimated to exceed 1,886,000.

The following annual dividends have just been declared by Japanese spinning companies: The Godo mills of Osaka, 20 per cent, and 10 per cent special, which only take up half the profits for 1906; Kanegafuchi mills, 20 per cent, out of over 60 per cent earned; Tokyo mills, 50 per cent; and the Home and Foreign Cotton Trading Company of Osaka 15 per cent.

NEW ORGANIZATIONS.

The Kyoto Automobile Company has been organized with a capital of \$1,500,000 to operate a public motor service. One hundred vehicles will first be put on the streets, and will maintain a 10-minute service.

The Japan Celluloid Company has begun the construction of its factory at Aboshi. The company's head office is in London, and considerable of the \$2,000,000 stock has been taken in England and Germany. It is expected that the company will be able to manufacture a ton of artificial silk and three tons of celluloid per day.

Bronze ware manufacturers in Takaoka, which district is noted for bronze work, have agreed to form a company with a capital of \$500,000 for the manufacture of their ware.

Among the newly organized electric companies are the Hansei Electric Railway Company to build a new 5-mile line at Osaka at a cost of \$1,250,000; Kobe-Takarazuka Electric Railway Company, capital \$1,250,000.

CHINA.

MANCHURIAN ACTIVITY.

BUILDING MOVEMENT—CANNED GOODS' POPULARITY.

Vice-Consul P. S. Heintzleman, of Dalny, makes the following report on the progress and development in the Kwantung peninsula of Manchuria:

An interview with large wholesale dealers in building materials here reveals bright prospects of a large volume of business in roofing supplies. There must of necessity be considerable building done in this city and in the numerous other towns dominated by Japanese influence along the South Manchurian Railway to accommodate the fast-increasing population and business enterprises; also the extensive improvements contemplated by the railway company will create a demand for roofing and other building equipment for the fitting up of terminals and various stations. I have observed that on the buildings now in construction here Chinese tiles are not being employed for roofing as formerly, the material being chiefly of tin, iron, or steel.

There are four brick factories in Dalny after the Japanese system, and five operated by Chinese methods. From 300,000 to 4,000,000 bricks are produced monthly by each of the Japanese factories and 60,000 to 90,000 by each of the Chinese factories. During the winter season, however, they are all compelled to suspend work because of the frozen clay.

The population of Dalny, according to the police census taken last December, is given at 22,483, the Japanese numbering 8,361, the Chinese 14,099, and foreigners 23. The total number of Japanese in all Manchuria is estimated at 40,000.

INCREASING DEMAND FOR AMERICAN CANNED GOODS.

Upon visiting the leading stores, both Japanese and Chinese, at Dalny and other towns of southern Manchuria, I find American canned goods always in evidence and am informed that there is a demand for them. Of course Japanese preserved goods can also be purchased in all the stores and bazaars; and though the price is lower, the quality is decidedly inferior to the American product. During the recent war the great Manchurian armies of Japan were supplied with enormous quantities of American canned goods, and thousands of soldiers who never before tasted provisions of this class and quality at once grew fond of them. A prominent merchant here states that since the disbandment of the armies many of these soldiers, who are now civilians, continue to have American canned goods as an article of daily food and that statistics show a large and sudden increase in the consumption of this class of provisions.

There are but three foreign firms, all British, domiciled here. Though the prospects of Dalny becoming the great commercial center of Manchuria are bright, yet its present trade is not sufficient to extensively attract foreign merchants to establish themselves. Dalny's trade for 1906 totaled \$12,309,908. Representatives of large commercial houses in the East are here, however, viewing the situation and studying conditions, and I have no doubt that six months hence there will be several of the long-established foreign firms of the Orient with branch offices in this city. Upon the opening of Dalny to international trade on September 1, 1906, it was declared a free port, and all goods are now entered without payment of duty. [The vice-consul furnishes a list of the leading Chinese and Japanese business houses, which the Bureau of Manufactures has filed for the use of American exporters.]

SOUTHERN MANCHURIA.

EQUAL OPPORTUNITIES FOR ALL—AMERICANS AT FAULT.

According to a report received by the Department of State from Minister W. W. Rockhill, the reported discrimination by the Japanese authorities is without foundation. The minister writes:

That the competition of the Japanese for a large share in the markets of southern Manchuria will be sharp I have not the remotest doubt, but I think, from what I can learn from Japanese officials, that we and the other nations interested in this trade will be offered every opportunity—I may even say inducement—to take a full share in it. The Japanese need capital to develop either Manchuria or Korea. Foreign capital and enterprise are essential to them to insure the success of enterprises they already have there, such as the Southern Manchuria Railway, and to repel foreign assistance or put foreign capital under any disadvantage would be extremely unwise.

I understand from reliable sources that for months past most of the trade of Dalny and Antung has been in American flour and piece goods, handled, of course, by Chinese and very largely by Japa-

nese, and imported from Chefoo and Japan. It would seem possible that the volume of American trade in Manchuria has not in reality been much less than in past normal years, if not, in fact, well up to the average; but the channels of trade have temporarily changed, and local business interests are consequently disturbed.

AMERICAN BUSINESS METHODS.

There will rise up in the near future numerous questions concerning rights and privileges of Japan and its subjects in Manchuria, but I still confidently believe that our people will have equal opportunity for trade there, and will enjoy all the rights of the most favored nation, if they will avail themselves of them. Unfortunately our people have not conducted their business in China as other nations do, especially the Japanese and the Germans—establishing direct relations with their customers. The greater part of all our merchandise, if we exclude petroleum and a few other articles of trade, is handled by foreign or Japanese firms who either import them directly from the United States or get them through commission houses, usually in Shanghai. Our interest in most of our products ceases the day they leave the factory or the port of shipment in the United States.

AN IMPORTANT MARKET.

The brief excursion taken by the American Shanghai merchants to Newchwang and adjacent localities was, I think I am right in saying, the first they had made to a market only 800 miles away, and which they rightly consider one of the most important they have in China. This apparent lack of interest, for it can only be apparent, is recognized by American business men with whom I have spoken as deplorably short-sighted, and discriminates more against us than any other cause, be it Japanese or Chinese. Let us hope we will finally recognize the absolute necessity of following the lead, to some extent at least, of the countries which are making such a success in extending their trade interests here, and ourselves watch local markets and local requirements and establish local relations.

AFFAIRS IN NEWCHWANG.

CHINESE ADMINISTRATION OF THE MANCHURIAN CITY.

Vice Consul-General Albert W. Pontius submits herewith the following information gathered in reference to affairs in Newchwang after the Japanese evacuation:

The city is at present policed by 400 men recruited from the constabulary at Tientsin. This force is divided into four divisions, each commanded by a captain, who is in charge of 55 men on active duty. Each division is divided into four stations, with subordinate officers in charge. A board of police, similar to that in Tientsin, has been established. The Japanese still retain their administration building, wherein at present there still exists a bureau for the settlement of affairs remaining.

The Japanese have established a concession on their railway at Yinkow, which is about 3 miles distant from Newchwang. Numerous buildings have already been erected thereon, and about 20 per cent of their population here have established themselves at that place. The

number of Japanese here is estimated at 6,000, 1,200 of whom have already moved to their concession. Newchwang of to-day is very unlike the Newchwang of old. Streets have been improved and a practical system of gutters installed, and the sanitary system instituted by the Japanese deserves commendation. The question of proper land registration is bound to be an important item in the very near future. Heretofore, in some cases, land transactions have been arranged for between Chinese and foreigners and only a record thereof kept at the consulates.

BRITISH INDIA.

SOME INDUSTRIES AND EXPORTS.

THE SOAP MARKET.

Consul-General William H. Michael makes the following report from Calcutta on trade topics:

Within the last year a number of soap factories have been started in India and others are contemplated. The display of toilet soaps, as well as laundry soaps, at the native exhibition being held in Calcutta is very creditable. The exhibits are large and installed with much taste. It has been charged that these Indian toilet soaps contain too much water and starchy matter, and entirely too much free carbonate of soda, and that the defects of the soap can not be covered up by a free use of native scents. To meet these charges the manufacturers submitted their line of soaps for analysis to reliable chemists, who have reported that certain samples are of high quality, while others contain 20 per cent of starchy matter and an excess of free carbonate of soda, so much of the latter as to make the soap destructive of the skin. This agitation will doubtless result in improving the native soaps, especially toilet soap.

It has been suggested that the example of America in the use of cotton-seed oil in the manufacture of fine soaps be followed, and in that way utilize a part of the cotton seed produced in India. One leading paper said: "There is not the slightest necessity for exporting a pound of cotton seed from India, and soap makers may well urge on a Swadeshi cotton-seed-oil industry. It would pay well." The Swadeshi movement is intended to discourage the use of foreign-made articles of every kind that can be made in India, and the impetus to soap making is due to this movement, which everyone familiar with conditions must admit is growing rapidly.

In the meantime American manufacturers should endeavor to develop Indian trade, especially in those lines that India will be slowest to take hold of, such as the manufactures of machinery, scientific instruments, structural iron and steel, steel boats, electrical supplies, agricultural implements, chemicals and drugs, motor cars, etc. There is a decided friendship among all classes of Indians toward Americans and American manufactures, and this feeling should be cultivated without delay.

EXPORT OF COAL FROM CALCUTTA.

The export of coal from Calcutta by water is increasing, and it would appear that India is destined to become the main source of

supply for this commodity in the Far East. In 1894 the exports amounted to 38,360 tons; in 1900 they had increased to 1,340,223, and last year to 3,055,300 tons. This is a small amount of coal considered in the light of the possibilities of the Indian coal fields. It would hardly be expected that in a country containing 300,000,000 people, or 184 to the square mile, there would be any scarcity of labor for the development of coal mines or any other enterprise requiring unskilled labor. But this very difficulty now presents itself in India. In the development of coal mines it has already been demonstrated that the latest labor-saving machinery is necessary. The manufacturers of mining machinery would find India an inviting field for this class of manufactures. The total shipments of coal during January of this year amounted to 7,410 tons per day, or 222,313 tons for the month. There is at this time 311,073,694 tons on the ground. This coal is sold for \$3.35 per ton, and during January there were 36 vessels loaded.

COTTON SPINNING AND WEAVING.

The statistics of cotton spinning and weaving in the Indian mills last year for the months from April to November, inclusive, compared with the same period of the previous year shows a decrease of 9,454,557 pounds in yarn spun, and an increase of 101,251,850 yards in woven goods. During the nine months of 1904, there were 369,118,360 pounds of yarn spun; in 1905, 456,748,003 pounds, and in 1906, 446,293,446 pounds. The number of yards of woven goods produced during these months in 1904 was 370,611,160; in 1905, 386,955,415, and in 1906, 488,207,265.

STRAITS SETTLEMENTS.

THE METHODS FOR SECURING PATENTS.

Relative to the expense of securing a patent in the Straits Settlements, Consul-General David F. Wilber makes the following report from Singapore:

There is a fee for which there is a stamp affixed by the colonial government of \$50 Straits currency, equal to about \$28 United States gold. It is also necessary to engage an attorney, whose fee is about \$100 local currency. [A leading law firm at Singapore is named by the consul for Americans to communicate with who may wish to take out patents there. He also incloses patent ordinance No. 12, of 1871, of the Straits Settlements. This will be loaned to persons applying to the Bureau of Manufactures.]

ASIA MINOR.

MODERN DEVELOPMENT.

FOREIGN INVESTMENTS—AMERICAN TRADE OPPORTUNITIES.

Consul E. L. Harris, of Smyrna, furnishes a report on the investment of foreign capital, and the best method for increasing American trade in Asia Minor, from which the following is taken:

Asia Minor is a virgin country. The capitalists of England, France, and Germany are beginning to turn their attention this way.

Germany just now is doing more than any other country to find an outlet in Asia Minor for her capital and manufactured products. The German campaign began about 1888, and has been followed up with energy and profit. At present German capitalists have loans in Turkish securities amounting to about \$50,000,000 invested chiefly in fisheries, railways, and armaments, drawing interest at the rate of 4 and 5 per cent. The railways in which Germany is interested are the Anatolian and Bagdad.

In addition to floating loans at a profitable rate of interest, the policy of the financiers reacts favorably upon German manufacturers who derive large sums from the sale of munitions of war, railway supplies, and city tramways. French financiers have about \$100,000,000 in Turkish securities and railways. The railways in which France has a direct interest are the Smyrna-Cassaba, Beirut-Damascus, Rayak-Aleppo, and the Constantinople-Salonica. The only English railway enterprise in Turkey is the Smyrna-Aidin, for which an extension was recently secured. It is a financial success without a kilometer or mile guaranty.

FOREIGN COLONIES—EXPORTS TO AMERICA.

There are more than 1,000 English people settled at Smyrna, chiefly in the suburban towns of Bournabat and Boudja. There are about 1,200 French and 800 German subjects. The present American colony numbers about 100. To what extent these resident Americans have been instrumental in furthering American commerce in this part of the world is not known, but the trade balance is all in favor of the Vilayet of Smyrna. For the fiscal year 1905-6 the exports to the United States from this consular district amounted to more than \$3,000,000, consisting chiefly of carpets, chrome ore, emery stone, figs, licorice root, olive oil, opium, raisins, tobacco, and wool. There are no statistics kept at the Smyrna custom-house showing the value of American manufactured articles imported into this vilayet. The only way to obtain such figures would be to apply to the different merchants engaged in the business and such a method would not secure reliable results. There are very few firms, however, in this city engaged in the American trade, which is noticeable as a contrast distinction when compared with the business activity of the resident citizens of England, France, and Germany, with their respective countries.

The German flag is one of those most frequently seen in the port of Smyrna, and German capital is coming into the country. Mining, electrical, agricultural, and forestry experts have been this way. Wherever the German colonist has located in this country he has been a success, especially in the Konia district and Palestine.

A STEAMSHIP LINE WANTED—BANKING PROSPECTS.

There should be better steamship communication from the Levant direct with America. There was a time when the American flag was one of the most frequently seen in these waters, but that was forty years ago. Now this flag is rarely seen in this harbor, and then only at the masthead of some millionaire's yacht, tourist steamer, or battle ship. Business men in Smyrna claim that they can give sufficient freight in emery stone and licorice root to an American steamship company which would warrant the establishment of a line

with regular sailings once a month from Smyrna to New York. This is not much, but it is something and would serve as an entering wedge which might lead to better things in the way of trade expansion by and by.

An American bank in the city of Smyrna would greatly facilitate trade with this country. It should be modeled after the banks which Germany has established in the Orient and South America. The bank could give information in regard to the credit standing of business firms, secure reliable agents, and take the initiative in exploiting the resources of this remarkable country in the interests of American commerce and industries. At present all banking transactions of business men in this city with the United States is done through European financial institutions or their branches here. If we are ever to get our share of the now opening trade of Asia Minor, we must not be placed in a position of financial inferiority as compared to our most aggressive competitors, or be obliged to disclose trade secrets to them.

BUSINESS OPPORTUNITIES.

The city of Smyrna with nearly 400,000 population has no electric railway, electric light, or telephone. There are cities all over Asia Minor varying in size from 20,000 to 50,000 inhabitants where there are opportunities of getting concessions for electric light and traction. It is strange for American electrical concerns to turn their backs on this field, with the excuse that nothing under a \$1,000,000 concession would attract them. There is not an agent or representative of an American electrical concern in this part of the country. Germany and Belgium are ably represented in Smyrna, and they are getting the business. There are many little towns in the interior just now that are awakening to the necessity of electrical plants, and the day when the city of Smyrna will be revolutionized in this respect is not far distant. It is high time that American manufacturers of electrical supplies send out somebody to look at the country. As an example of the apathy with which the American people have regarded this field heretofore it may be mentioned that a young man born and raised in this city, therefore knowing the languages and resources of Asia Minor thoroughly, went to America a few years ago and spent four years in securing a training as an electrical engineer at an American university. Upon returning to Smyrna he made some futile attempts to get in touch with American electrical concerns. Now he is pushing the business of a big German electrical company which engaged his services at once.

The people are fast awakening to a realization of the benefits which would accrue to the introduction of steam and electrical enterprises of every description, as well as the wealth which would be theirs if the mines of the country were to be rationally developed.

In spite of difficulties, the vilayets of Asia Minor have made a great deal of progress during the past few years. The population of the Vilayet of Smyrna, for example, is steadily increasing. People are leaving Macedonia and the islands of the archipelago to settle in the country districts back of Smyrna. The antimony, emery, and chrome mines are being worked with increased outputs each year and under improved conditions. American farm machinery is finding a readier sale each year, which indicates that agriculture in the

interior is slowly making headway. On the whole, conditions in this country are often painted blacker than they really are. I can recommend to those of my countrymen interested in capitalistic investments and the extension of American commerce the advisability of coming to Smyrna and taking a look at the country.

COMMERCIAL OPPORTUNITIES.

CONCESSIONS TO COMMERCIAL TRAVELERS—SELLING METHODS.

Consul Harris also writes that the Imperial Ottoman Government has decided to grant certain facilities to foreign commercial travelers arriving in Turkey in connection with the custom-house operations. Mr. Harris continues:

According to the existing regulations merchandise imported as samples pays an import duty of 8 per cent ad valorem, but on re-exportation 7 per cent is returned. As it often happens that commercial travelers do not leave by the same port as that at which they entered the Empire, difficulties arise in obtaining the return of the 7 per cent. It has therefore been decided that in future the customs authorities at the port of entry will make a list in duplicate of the goods imported by commercial travelers and that these lists can be presented at any custom-house of the Empire for reimbursement.

Eight hundred commercial travelers come to Smyrna every year. With the exception of about 75 from England they all come from continental Europe. None come from America. The aid of the commercial traveler has become such an all-powerful factor in the development of trade in this part of the world that it is a matter of much comment on the part of those familiar with business conditions that American manufacturers do not send their representatives to Smyrna. Thus far their American interests have been either in the hands of resident agents or they have depended upon catalogues to bring them an occasional and uncertain order. These methods of securing markets are generally unsatisfactory. Agents are not always fully informed or empowered to act, and orders taken from catalogues often cause delay and unnecessary correspondence. American manufacturers who wish to secure a foothold in this country must adopt aggressive methods, and send out men who know their particular branch thoroughly.

EXAMPLES OF SUCCESS.

As an example of what can be done by direct representation, the following may be cited: At one time stereoscopes were almost unknown in Smyrna. A few were on sale in the stores of local agents, but purchases were few and far between. An American traveling agent for a firm of stereoscope manufacturers in the United States came to this city bringing a few samples. He steadily pushed their sale in every store and private residence to such an extent that he was soon obliged to engage four assistants to aid him in the business. Within a short time a majority of the inhabitants of Smyrna were provided with stereoscopes, and it is stated that the agent met with the same success in many other towns of the Levant.

Until recently the match trade was almost entirely in the hands of Austrian and English firms, and they, resting on their past suc-

cesses, took no steps to keep their trade. An energetic agent for a firm of Swedish match manufacturers entered the market, and, although his prices were not lower than those of the firms previously supplying this trade, yet he soon succeeded in practically getting a monopoly of the business. These results can be obtained with almost any article of import, if the commercial travelers are provided with samples and have at the same time energy and resourcefulness. Prices must be submitted to business firms here in Turkish money, weights, and measures. The language most spoken in Smyrna, apart from Turkish, is Greek, with French a good second. But an American commercial traveler will be able to get on nicely with English. All the better class of business men in Smyrna speak English, and no doubt this is also the case in other large cities of the Levant.

Commercial travelers need no license in Turkey. All that is necessary to go from one port to another is that they be provided with a police traveling permit, which costs 60 cents, and can be obtained from the local police authorities through the American consulates. Under no circumstances should former Ottoman subjects ever be sent as commercial travelers. In the absence of a naturalization treaty with Turkey, naturalized American citizens of Ottoman origin will be subject to no end of trouble and run grave risk in the end of being expelled from the country. In fact the Government prohibits their return unless the change in nationality took place prior to 1869 or was done in virtue of a special permission granted by the Sultan.

LIBERAL CREDIT TO CUSTOMERS.

American manufacturers sending representatives to this country should be prepared to give credit. Wholesale houses here give long credit to their customers, and they demand the same privilege for themselves. This system may not appeal to the average American business man, but it is the only method to adopt in Levantine ports. European firms give long credit. Generally speaking, from three to six months' credit is given as a rule everywhere outside the United States, so that trade conditions in Smyrna present nothing exceptional in this respect. The commercial traveler coming here unprepared to make some concessions in this respect stands no chance whatever to sell anything.

American manufacturers of the following articles should send traveling men to Smyrna: Electrical and mining supplies, fire extinguishers, gasoline lamps and stoves, farm machinery, automatic slot machines, laundry machinery, cameras and photographic supplies, shoes and leather, surgical instruments, water filters, musical instruments, furniture, typewriters, phonographs, machine tools, and barbers' chairs.

TRADE AT SMYRNA.

FRUIT DESTROYED BY FROST—EFFECT ON GENERAL BUSINESS.

Mr. Harris supplies the following additional information concerning conditions at Smyrna and the exports of lumber, iron and steel, and sawmill machinery, and the extent and value of the forests of Asia Minor:

The lumber used in Smyrna comes chiefly from Roumania and Austria, the former supplying the greater portion, and also the

lower grades. The interior of Asia Minor is gradually increasing its supply of lumber of cheap quality for building purposes and of fair quality for railway ties. Roumanian and Austrian lumber is imported mainly in the shape of planks 3 inches thick, 10 inches wide, and from 12 to 18 feet in length. This lumber is used mostly by the few local sawmills, which cut it down to the sizes required for the manufacture of fig and raisin boxes. These sawmills make a specialty of box manufacturing, taking contracts in advance or else preparing ready stock, which in the fruit season sells easily, but at rather low figures.

Pitch pine of American and Norwegian origin is of late coming into favor for building purposes and for flooring. This wood is greatly prized, but its price of \$23 per 35.316 cubic feet is an obstacle to its extensive use. The article is in the hands of a few dealers, who keep small stocks and maintain high prices.

Cheaper grades of mahogany, of American and African origin, are imported from England for cabinetwork. It sells at about 15 cents per square foot 1 inch thick. The demand is supplied entirely from commission merchants in England. Walnut sells by the piece. The supply comes entirely from the interior and from the Turkish Black Sea provinces, the quality being very fine. Other kinds of hard wood, such as ash, oak, etc., are mostly of native origin. The prices vary considerably, the lumber generally selling by the piece. That the lumber trade of Smyrna is on the increase is shown by the fact that the value of the imports in wood and timber, and goods manufactured therefrom, rose from \$410,000 in 1901 to \$520,000 in 1905.

As regards pine of every description, the interior of Asia Minor contains some of the finest forests in the world, and the day is not far distant when they will be brought into use to supply the home demand in this respect. The ties of the Aidin Railway Company are now nearly all furnished locally, and other companies will surely cease to import pine lumber just as soon as the ways of communication will enable them to supply their demands from the interior sources.

There is a prospect that the trade in the necessary lumber for manufacturing boxes will be less this year than ever before, for the reason that the fruit outlook is bad.

FRUIT CROPS DAMAGED.

The month of January brought cold weather to this country, the like of which had not been seen for years. For a week there was a steady cold, with the thermometer at 12° below zero C. (about 21° F.). The result of this is that the orange and lemon trees are all practically ruined in this territory, and that fig trees have greatly suffered. So great has been the damage to fruit and crops generally that the authorities of this vilayet have been considering the advisability of prohibiting the export of a great many products which have been shipped abroad in former years. This naturally will exert a great influence upon the import of lumber generally, but its effects will only be felt temporarily. Hard-wood timber will be imported in greater quantities henceforth than in the past, for the reason that a large number of better equipped houses will be erected in the coast cities from year to year. This will continue to be supplied from abroad.

IMPORTATIONS OF IRON AND STEEL.

The machinery used in the local and interior sawmills is imported almost exclusively from England. It consists of vertical reciprocating saw frames, with from 6 to 12 blades, and circular rip and crosscut saws. Planers have not found much favor, owing to the poor quality of lumber and its uneven thickness.

An average quantity of about 8,000 tons of iron and steel is imported annually at Smyrna in the shape of pig iron, L girders of various sizes, bars of flat, round, and square sections, and angle iron. Belgium, with lower prices, supplies the greater part, England, Germany, and Austria supplying the balance. L girders are rapidly coming into use for building purposes, although their use is at present limited to floor and roof foundations.

Bar iron finds a good market in the interior, and also locally in supplying the needs of the numerous native smiths who turn out elaborate wrought-iron work in the shape of doors, brackets, small tables, and chairs for garden use, etc. England supplies all the pig iron, while Germany and Austria furnish the bulk of the steel. Belgium supplies three-quarters of the bar iron, which reaches about 4,000 tons per year.

Smyrna is an earthquake center. It has repeatedly suffered on this account since its history began, some 3,000 years ago. The houses are constructed only two stories high, but the framework is entirely of wood. It was demonstrated at San Francisco that the steel-frame sky scraper withstood the earthquake shocks admirably. These things are mentioned to show that there is an opening here for American iron and steel, and were an agent to come here he would find an opportunity to do a good business.

The Aidin Railway Company has lately secured the concession for the extension of the line some 65 miles farther. It would be well for American manufacturers, bridge builders especially, to enter into correspondence with the company in view of securing any business which may be had.

IMPORTATIONS OF SOAP.

Consul Harris writes that for its population of over 1,500,000, practically all the soap used in the Turkish Vilayet of Smyrna is imported from Europe, the following being the particulars of this trade:

Some small quantities find their way here from other parts of the Turkish Empire, but it is scarcely worth mentioning when compared with the amount brought from England. There are a few soap-boiling establishments in the province which use certain cheap brands of olive oil in the manufacture of an article something similar to a white castile soap, but its use is confined chiefly to the poorer classes of people. The kind of soap imported from other parts of the Empire is of the same quality, and comes mostly from Crete. This is the soap which is used more than any other in Turkey for laundry and household purposes.

Some attempts have been recently made in this part of the country to manufacture soap from cotton-seed oil imported from America. On the whole, Smyrna merchants would rather ship olive oil to

America than sell even small quantities to local soap dealers, for the sole reason that it is more profitable. The manufacturing attempt has not been an unqualified success because the importation of cotton-seed oil, unless chemically colored, is prohibited, and upon the importation of unadulterated cotton-seed oil the custom-house authorities take charge of it until it is placed in the boiling vats and mixed with chemicals.

Household and scouring, as well as the plainer kinds of toilet soaps are chiefly imported from England, as also are naphtha and disinfecting soaps, while France supplies the more delicately perfumed toilet articles as well as large quantities of a cheap soap scented with bitter almonds, known under the name of Marseille soap. Germany and Austria have a very small share in this trade. Of American soap but one kind is apparently on sale here, and the whole stock consists of only a few pieces of a well-known shaving soap. This is not much of a showing when contrasted with the aggressive methods pursued by English firms selling soap on this market. All over the town there are placards and advertisements extolling their wares, and at least once a year travelers come out to push the trade. If American firms would adopt the same tactics, they would find this market a profitable one.

OPPORTUNITIES FOR AMERICAN PLUMBING SUPPLIES.

Thus far the city of Smyrna has been backward in adopting modern innovations. This has been especially the case with everything which has had to do with appliances which go to make a house comfortable. The houses, as a rule, are very poorly equipped as far as bath and lavatory arrangements are concerned. Generally speaking, sanitary appliances of every description so common in the United States would be suited only to a portion of the inhabitants of Asia Minor, as the Mussulman population chiefly patronize the so-called Turkish baths, which are provided with running water. The Greek population of this country also use these baths to a great extent. The resident Europeans, on the other hand, are attempting to equip their houses with modern sanitary arrangements, but the number of houses thus furnished throughout the whole of this country is very limited.

As regards Turkish baths, there is little or no opportunity to supply modern sanitary appliances. The major portion of the earthen pans, together with the flushing tanks, used in private dwellings are imported from England, the remainder coming chiefly from Belgium. It is not the custom here to install baths when building houses. The few baths imported in the past have come from England, although a certain grade is made locally from imported material. American manufacturers of sanitary appliances could well compete for supplying earthenware pans if more care were taken with packing. Unless breakage is reduced to a minimum, there is no profit in shipping this class of goods. There are also opening markets in Smyrna for the cheaper grades of plumbing supplies of every description connected with lavatory, closet combinations, and bathroom arrangements. This includes siphons, tanks, pipes, and flush connections, together with the necessary screws, washers, bolts, etc. The best method to secure this business is to get hold of some good, reliable resident agent who will push the trade from house to house.

CHEESE TRADE.

The bulk of the cheese used in the Aidin Vilayet is imported principally from Bulgaria, smaller quantities coming from Roumania and Greece. The total imports amount to about \$240,000 per annum. That coming from Bulgaria, chiefly from the districts round Adrianople, is mostly a white cheese made of sheep's milk, and is imported in barrels containing brine, which preserves the cheese. A similar cheese but strongly salted is imported from Bulgaria, packed in sheep and goat skins. Holland has the largest share of the trade in fancy and better qualities of cheese, the well known round Dutch cheeses being on sale in almost every store. The next favorite cheese is Gruyère, which is imported in fairly large quantities. What is known here as American cheese is imported in small quantities, chiefly from Canada. Other qualities such as Camembert, cream, Stilton, Roquefort, etc., are only occasionally imported for the use of the richer classes of Europeans residing in Smyrna.

WATCH AND CLOCK TRADE.

Germany supplies the greater and the cheaper portion of the clock trade, Austria and the United States furnishing the remainder, in better grades. There is a steady though limited demand for American alarm and eight-day clocks, which have the deserved reputation of being more durable than the German article. Only about \$3,000 worth of these clocks are imported. This amount could be greatly increased were the manufacturers to give attention to the first steps of the business and use judgment in the selection of their local agent. American clocks and watches enjoy throughout the Levant a very high reputation, and it would be a waste of opportunities not to make use of this advantage in securing a larger share of the imports.

Watches are imported chiefly from Switzerland and France; Germany and Austria-Hungary divide about equally the balance of these imports. The quality of the goods is generally inferior, and they are sold at low prices. A very small portion of the watch trade goes to the United States. Should the manufacturers of a recognized standard American make decide to appoint an agent here who would sell their product exclusively, a good business could be started, especially if the agent would keep a stock for repairs.

AFRICA.

NORTHERN AFRICA.

THE RED SEA COMMERCE.

GROWING TRADE IN THE BORDERING COUNTRIES.

Writing from Port Said, Egypt, Special Agent Charles M. Pepper describes trade conditions in countries bordering on the Red Sea, and furnishes valuable information regarding transportation routes and the opening for various manufactures that is presented in the Sudan and Abyssinia. His report follows:

The Red Sea commerce, which passes through the Suez Canal and is separate from the trade of the Orient, is growing. It has an interest for American exporters, and I therefore submit some information based on observations made during various voyages and stops at several of the way ports. Interior development of the bordering countries on both sides by means of railways is going on, but this is greater in Africa than in Arabia. The latter country, however, has a steady volume of imports and exports. The ports of transshipment, both for Arabia and Africa, are Suez at the lower entrance to the canal, and Aden, which commands the entrance to the Red Sea. The Khedivial Steamship Line of Egypt dispatches a vessel weekly from Suez, which touches at the majority of the landing places, including Port Sudan, the gateway to Khartum. The vessels of the Hamburg-American Line in the Persian Gulf service also touch at Port Sudan. The Italian steamers as a rule put in at Massowah, which is under the authority of Italy, but the relation of this place to African commerce is not important. The Messagerie Maritimes steamers call at Jibuti, opposite Aden, on the French Somali coast, which is the inlet for Abyssinia. On the Arabian coast, except two or three small landing places for the Sinai Peninsula, the ports of call are Jeddah and Hodeida. The former is the point of disembarkation for the Mohammedan pilgrims en route to Mecca, and is not of commercial consequence. Hodeida is more important, both for its coffee shipments and its imports of cotton piece goods. It is the distributing point for the extensive district known as the Yemen, and American manufacturers have a special interest in it, because of their valuable trade in cotton fabrics and the efforts of the Manchester mills to get that trade away from them.

COTTON PIECE GOODS.

In a recent year the importations of American piece goods were 7,000 bales, mostly coarse, unbleached brown sheetings, which command a steady market, because they are low priced and are specially adapted to a peculiar process of dyeing that is employed by the Arabs in this region. The goods which are most readily marketed are in

bales of 25 pieces, each measuring 30 yards, with a width of 36 inches, and weighing from 160 to 250 pounds. The British consul at Hodeida forwarded samples of these American fabrics to Manchester, and representatives of the Bombay mills also sought to obtain an opening for the coarse India cottons, but thus far neither Manchester nor Bombay has succeeded in imparting the greater quantity of dye which is necessary in order to retain the color.

The Khedivial steamers from Suez make fortnightly calls at Hodeida, but the bulk of the traffic is carried on by the coasting steamers which ply between it and Aden. Mocha, which is nearer to Aden, also receives piece goods in exchange for coffee by means of small coasters. An American consular agent is stationed at Hodeida.

TRADE OF ABYSSINIA.

In Africa one of the commercial prizes of the future is expected to be the trade of Abyssinia. Its possibilities and its present limitations were set forth two or three years ago in the report of Consul-General Skinner, of Marseille, who was sent by the United States on a special commercial mission. Since then progress has been made, and a fair market for foreign goods is indicated. Lately both French and German commercial missions have visited the country, carrying samples of various articles for which a demand exists or may be created, but they were to some extent anticipated by the forehanded action of the United States, which already had made American goods known. American cottons practically monopolize the market. A Greek firm, with offices in Marseille and New York, which exports coffee and hides and skins from Arabia and Abyssinia to the United States, imports piece goods, and this is one means by which piece goods from the United States have obtained their predominance in both countries. But there is competition, and India as well as Manchester is seeking a share in the trade by offering its coarse fabrics. The largest supply warehouse for Abyssinia, as extensive as a New York department store, is controlled by a Bombay firm.

TRANSPORTATION OF FREIGHT.

Substantially all the imports into Abyssinia are now through the French Somali port of Jibuti, then by the narrow gauge French railway to Dire Dana, and thence by caravan to the interior. As stated above, the French steamers for the Orient call at Jibuti, but most of the freight received is transshipped across from Aden, a night's steaming for the fast vessels and twenty-four hours for the slower ships. The railroad is the key to the commercial and industrial opening of Abyssinia. The line from Jibuti to the interior does not and can not pay for many years, yet its extension to Adis-Ababa, the capital, is necessary and is planned. One of several pending questions is whether the French company shall continue the construction.

The railway is certain to be extended to Adis Ababa, and the project of a railroad from Adis Ababa to the Nile, which has lately been revived, in time will be carried out. The United States, by establishing a consul-general at the capital of Abyssinia, has placed itself in a position to protect and foster its trade in this sphere of the Red Sea commerce.

In a general report on trade conditions in Egypt^a I referred briefly

^a Monthly Consular and Trade Reports, October, 1906.

to the Sudan, with its population of 1,850,000 and with various development projects being carried on by the British administration, as a field for trade expansion. Fuller treatment may be given the subject in considering the commerce of the Red Sea, for this is the direct and natural route to Khartum and the Sudan region. This was recognized by the Government in building the Berber-Suakim Railway and in constructing Port Sudan to offset the lack of harbor facilities at Suakim. The bulk of the \$5,000,000 of foreign goods imported into Sudan still goes by the roundabout route of Alexandria and Cairo, up the Nile to Wadi Halfa, and thence to Khartum, but this is because the railway from the Red Sea to Berber, 270 miles in length, has been open for traffic less than a year and little is known of its advantages. But that the traffic will gradually be diverted from Wadi Halfa is not questioned.

RAILWAY INTO THE INTERIOR.

The object of the British authorities in building the Berber-Red Sea Railway was to provide an outlet for the Sudan products as well as an inlet for foreign articles. An interchange of cereals and cattle with the neighboring countries is one of the first results. More is expected of cotton. The quantity of raw cotton which ultimately will be exported is entirely conjectural, since several years will be required to demonstrate the commercial success or failure of the experiments now being made in the White and Blue Nile regions. Soil and climate are not the only consideration, since the lack of willing native labor also has to be taken into account. One of the most promising of these experiments is that of an American citizen, Mr. Leigh Hunt, in the Zeldab district of Berber. The carpenters and other plantation artisans on this estate were sent out by Booker Washington from Tuskegee.

MARKET FOR VARIOUS MANUFACTURES.

Whatever quantity of raw cotton is produced in the Soudan the shipments will be by the Red Sea route. In the meantime by far the largest item of imports is cotton piece goods from Manchester. Besides raw cotton and cotton seeds, the Sudan exports gum arabic, senna, sheepskins, and cattle. Part of the gum arabic and the senna is taken by the United States.

The heavy purchases of railway and similar material and of provisions for the construction camps which were necessary while the Berber-Red Sea railway was under way, are now followed by more normal imports, though a great deal of bridge work is still imported, and also material for the harbor works. Railways, irrigation, and other public works carried on by the British administration for the development of the Sudan continue to furnish an inviting market. Wrought iron in its various forms meets with a steady demand.

ARTICLES THAT ARE NEEDED.

Some time ago a series of suggestions were drawn up by the Director of Customs of the Sudan Government with a view to assisting merchants abroad. Among other matters attention was called to the ad valorem duties, which require shippers to supply their clearing agents with invoices showing the cost of the goods c. i. f. Sudan. Exporters were advised to send out their own representatives. Among the articles cited for which a market exists were galvanized-iron water

and oil tanks, since these can also be used for packing with advantage. Other articles include planed and rough spruce boards; door and window frames, 4 by 4 by 20 inches and larger sizes; paints for wooden buildings, petroleum, iron mongery, sheet tin, cotton piece goods, mineral and table waters, machinery and tools, and especially oil-driven machines; plumbers' supplies, including galvanized-iron sanitary buckets and baths, brass water taps; iron railing and gates; iron or hardwood furniture, such as collapsible tables, wardrobes, chairs, washstands, bookshelves, etc.; iron locks, keys, and doorknobs; leather boots and shoes; steam launches, iron and steel barges and hoppers, wooden boats, material for light railways, galvanized-iron sheets (corrugated) in all sizes and lengths; bolts, nuts, and pipes of iron, steel, or galvanized iron; angle iron, and safes.

For tinned provisions and fruits, for which there is a permanent and certain demand, the recommendation is that they be packed in jars or vessels which could be utilized when empty, since crockery is very scarce. Among the food stuffs imported are white flour from France and India, rice from India, and sugar from Austria. Cement is supplied by Germany and Belgium.

American exporters, in looking over the foregoing list, might find a suitable line of goods which could be combined by a commercial traveler, and the round trip be made from Cairo to Khartum and ending at Port Sudan in the Red Sea, or vice versa.

ABYSSINIA.

TRADE CONDITIONS AND OPPORTUNITIES.

Consul-General Robert P. Skinner, of Marseille, furnishes the following report on Abyssinia, in which will be found suggestions in regard to the enlargement of trade with that country. He writes:

The treaty negotiated between the United States and Abyssinia in 1903 lays a foundation which makes business between the two countries possible. The rest depends upon individual effort in the United States and the absorbent power of the Ethiopians. It is declared in articles 3 and 4: "The two contracting Governments shall grant reciprocally to the citizens of the United States and of Ethiopia all the advantages which they shall accord to other powers in respect to customs duties, imports, and jurisdiction. Throughout the extent of the Ethiopian Empire the citizens of the United States shall have the use of the telegraphs, posts, and all other means of transportation upon the same terms as the citizens of other powers."

At present there is a native population in Ethiopia of probably 8,000,000, whose total foreign trade is scarcely worth \$3,000,000. Until improved means of transportation open up the great natural wealth of the country, until the purchasing power of the people becomes greater, and their wants accordingly more numerous, nothing very extraordinary may be expected in a commercial way. That eventually this wonderful corner of Africa, watered, wooded, underlain with mineral wealth, will contribute heavily to the world's stream of trade nobody who has visited it can doubt. Americans, however, desire immediate results. They are willing to buy the coffee, hides, wax, civet, ivory, and feathers which are sold to them by Aden or European exporters, they are willing to sell cotton sheetings for cash in New York, but they regard with something like pity the strug-

gle of Old World commercial travelers to sell small consignments of cheap staples and bazaar goods now, in anticipation of obtaining a connection which may prove really valuable ten or twenty years hence. In trade we are nothing if not opportunists.

AMERICAN COTTON PIECE GOODS.

We sell to-day, in Ethiopia, cotton sheetings to the value of, roundly, a million dollars a year. We appear to be the chief consumers of Ethiopian hides and large consumers of all other articles of export. Some years ago the Emperor Menelik conceded monopolies to certain firms for the importation or exportation of different goods. The cotton monopoly was especially valuable, and the effect of its existence was to make the yard of "aboujedide" a standard of value, just as cartridges and salt bars were the coin of the realm for smaller transactions. There is now a silver currency system. The concessionnaires exchanged their American cottons for coffee, and, as might have been expected, forced down the price of coffee to such a point that an outcry arose, wiser counsels prevailed in Addis-Ababa, and the monopoly system was destroyed. At present anybody can engage in Ethiopian commerce. Perhaps some of the American cotton exporters still fancy that they control the Abyssinian cotton monopoly, but I can assure them that I have seen Indian and Italian sheetings in the market, and that our competitors have no intention of letting this trade go by default. As to bleached goods, we have never made any effort to supply them.

Our manufacturers do not attempt to deal with the great native firms, and seem indifferent to the multiplicity of commissions and charges which, if cut out, would increase the native's purchasing power, and consequently the demand for goods. Our cotton manufacturers have asked the Government to appropriate money in order that new markets may be explored; they are vociferous in their demands for more foreign trade, but I have never heard from a single manufacturer of cottons who desired to sell his goods except to some agent in New York, who in turn is willing—sometimes only—to sell to foreign buyers, provided the latter will come to New York and pay cash for the purchase. The policy produces excellent results when times are good and there is a market for all we can manufacture. It does not provide for the rainy-day.

DISTRIBUTING CENTERS.

Aden has been the commercial center through which Abyssinian trade found an outlet, but the creation of the excellent French port of Jibuti, on the African shore, and the building of the railroad have changed that. Most of the great Abyssinian concerns have houses at Jibuti. The real distributing centers of Abyssinia are the curious old cities of Harrar and Ankober and the modern capital of Addis-Ababa. Harrar is surrounded by the famous coffee plantations, and will always remain, probably, a great commercial city. Four or five of the chief houses have large warehouses and carry large stocks of goods, consisting of a little of almost everything. The "negudis," or itinerant traders, bring thither produce from the interior, and exchange it for sheetings, firearms, and trinkets of all sorts. Harrar can be reached in one day from the railroad terminus, but it requires about twenty days of ordinary mule-back traveling

to get to the capital. The Abyssinian bank, now firmly established, has branches at Addis-Ababa and Harrar.

NATURAL RESOURCES.

The natural resources of the country, other than agricultural, have scarcely been touched. Some placer gold mines have been producing for a long time, and I fancy that serious prospecting would result very satisfactorily. So many soldiers of fortune have gone to Addis-Ababa to get concessions that few are now likely to be granted upon demand. It is really a pity that honest and experienced capitalists can not be the first to get a foothold in an empire where commerce and mining, as we understand them, do not exist. Those who are really prepared to exploit concessions of various kinds can obtain them, the usual conditions being payment to the Government of from 15 to 25 per cent of the profits.

It is difficult to say anything satisfactory about the gold-mining enterprises, as they are a long way from the capital. Indian traders pick up the dust at the placer mines, where it reaches them in quills. They work it up into rings, and in this form sell it in the market. I purchased several such rings myself as curiosities.

The agricultural value of Ethiopia is great, probably greater than any other section of Africa. While there are occasional visitations of locusts, rinderpest, and drought, the crops and herds ordinarily do very well. Abyssinia is the original home of the coffee plant, which was transplanted in Arabia, and first reached the world, commercially, from Mocha. The province of Kaffa, from which the name is derived, and the environs of Harrar furnish the most of the Abyssinian crop, a good deal of which finds the consuming market as Mocha.

COTTON AND OTHER FIELD PRODUCTS.

Wild cotton flourishes, and has been worked up into soft native fabrics for centuries. Latterly several Europeans, notably Gabriel Guigniony, at Harrar, and A. Savouré, near Addis-Ababa, have undertaken to grow cotton on a large scale. Mr. Guigniony told me in December of last year that he was succeeding beyond his expectations. Sericulture is likewise being pushed with undetermined results.

The native crops are wheat, corn, millet, sorgo, peppers, and other things in which we have little interest. As the country is sparsely settled, it can be made to yield a vast surplus for export, but the eventual difficulty will be that common to all parts of Africa, the unwillingness of the native to labor systematically. Where the necessities of life are easily supplied and ambitions limited it is difficult to inculcate our ideas of industry and thrift.

RAILROAD EXTENSION.

In the last three years I have had correspondence with persons and firms who have desired (by letter and catalogue, invariably) to sell everything in Abyssinia, from road engines to jackknives. The great, steady demand, however, is at present confined chiefly to cotton sheetings, although I do not mean to depreciate the importance of constantly working for every class of trade developed or developing.

Americans are particularly qualified to undertake the extension of the Ethiopian railroad, which has been a subject of political negotia-

tion for several years. There are signs that all such obstacles to actual construction will be removed in the near future. The Emperor has anticipated this result, and has had several thousands of laborers at work upon the proposed line for a year. Whether this work will be open to American constructors I can not say. Those who are interested might keep in touch with the matter by addressing Mr. William Le Cesne, secretary of the Compagnie Impériale des Chemins de Fer Ethiopiens, 33 avenue d'Eylau, Paris.

The building of the railroad is the only work of real consequence now under consideration in Ethiopia, and until it has been completed all other forms of material progress must be held in abeyance. The railroad will mean the actual opening to the world of a nation which has slumbered for fifteen hundred years. Railroads can not be operated without freight, and freight in paying quantities can only be forthcoming if fields are tilled, mines opened, and money put into circulation.

EGYPTIAN MARKETS.

COTTON-CROP MOVEMENTS—CEMENT AND OTHER IMPORTS.

Consul-General L. M. Iddings makes the following report from Cairo on current mercantile topics concerning Egypt:

The shipments of Egyptian cotton to Great Britain from September 1 to December 27 amounted to 215,674 bales, or an increase of 45,814 bales on the shipments for the corresponding period last year. The increase to Manchester alone is 31,767 bales. The shipments to the Continent, India, and Japan amounted to 143,238 bales, or an increase of 20,584, and to the United States, 39,370 bales, or an increase of 7,808. The total to all parts shows an increase of about 74,000 bales, and the stock in Alexandria is about 40,000 bales more than it was last year at this time.

The Austrian consul, who has carefully investigated the matter, says that owing to the enormous quantity of building which is now going on all over Egypt the demand for cement has grown very large. Imports are nearly double what they were two or three years ago, and the bulk of the trade is in British hands. From the United Kingdom Egypt receives nearly 70,000 tons of cement a year (or four times more than two years ago), Belgium next with about 25,000 tons, then France with about 12,000 tons; Germany, 2,000 tons, and Roumania, 1,000 tons. The principal demand is for the Portland quality, and in consequence of competition among the British, Belgian, and German makers a great many brands are now to be seen. Prices vary in accordance with the demand and supply, but last year the average price was about \$6.80 to \$7.78 per ton c. i. f. Alexandria. Cement is usually imported in 3 to 3.5 cwt. casks, and also occasionally in sacks of 1 and 2 cwts. The ministry of public works and the government railways are the heaviest important buyers of cement in Egypt.

BISCUIT AND CHOCOLATE.

The Belgian consul reports that as a consequence of the low price of British biscuits other countries find it difficult to compete in Egypt in this branch of trade. However, some of the principal French makers are selling fair quantities of high-class biscuits, and as regards the commoner qualities Germany is gradually gaining a footing in the

market. Among the native population there is a considerable demand for mixed sugared biscuits in casks. The following are the average prices quoted here by three English firms for the ordinary iced biscuits: Popular, in casks containing 30 to 33 pounds of biscuits net, 7 cents per pound c. i. f. Alexandria; household, 7.5 cents per pound. Payments are effected at three months, or subject to 3 per cent discount for cash. Larger casks are also obtainable at the same price per pound. Last year \$150,861 worth of biscuits came into Egypt, of which \$136,262 were British.

There is a gradually increasing market here for chocolate. During last year imports of chocolate and cocoa reached \$102,196. France headed the list with \$38,000, then came the United Kingdom and Italy, each with \$19,466, and finally Switzerland and Holland with about \$12,166 each. From France the importation was almost exclusively chocolate in tablets. Italian goods are represented in fancy lines, such as bonbons, etc. Britain's chief trade is in chocolate creams, and Holland sends cocoa powder. Cheapness is the *sine qua non* of the Egyptian market for this branch of trade. The Belgian consul is the authority for these figures.

IMPORTS LAST YEAR.

METAL GOODS AND MACHINERY COMPRISE THE GREATEST INCREASE.

A review of Egypt's trade last year by the British Chamber of Commerce of Egypt states that the largest increase in any of the customs' fifteen categories occurred in the metal division, where the gross value of the imports amounted to \$19,340,000, or \$5,174,000 more than in 1905. The quantity of girders and other heavy forms of iron classified according to weight reached 113,589 tons, of the value of \$3,500,000. In 1905 the figures were 88,039 tons, worth \$2,150,000. The value of the iron goods of which the weights are not recorded by the customs was \$5,730,000, against \$3,775,000 in 1905. Agents dealing in machinery can not complain that orders were scarce last year, for imports under this heading (locomotives and rolling stock being excluded) were \$1,755,000 to the good compared with 1905. In the agricultural machinery division Great Britain was credited with \$920,000; Switzerland, \$97,000; Germany, \$48,000, and America, \$21,000. The deliveries of locomotives and rolling stock were close upon $9\frac{1}{4}$ per cent lower than in 1905, the decrease being \$227,000.

PROSPERITY OF TUNIS.

MINERAL WEALTH IS CREATING A REMARKABLE DEVELOPMENT.

Consul-General Robert P. Skinner, of Marseille, advises that a very curious thing is taking place in Tunis, the country literally bending under the weight of its good fortune, concerning which he writes:

Tunis is overwhelmed by the unexpected needs which its riches have created. Originally it was a small agricultural country, dependent upon its vines, olives, cereals, and cattle. Everything was done in the least expensive manner, when a series of discoveries transformed Tunis from a strictly agricultural to a mining country. These discoveries commenced with the famous phosphates of Gafsa. Then

the sudden rise in the value of zinc rendered the beds of calamine more important. In the neighborhood of the phosphate beds of Gafsa the mines of Ain-Moulares, which are no less important, have been found. Farther north the mines of Kalaat-ed-Senam and of Kalaat-ed-Djerda, which are rather large, have been discovered. Five large mines of iron are being worked at Hamennas, Djerissa, Slata, Nebeur, and Nefzas. Attention is now directed toward the south, where manganese has been found in large quantities between Gafsa and Gabes. Nothing has been said of the desert country at the extreme south, but the geologists are of the opinion that these mountains, being of the same origin as those at the north, contain the same proportion of minerals. Prospecting parties are being organized to investigate this region.

RAILROADS UNDER CONSTRUCTION.

The characteristic feature of all these mines is their size. It is expected that millions of tons will be extracted from the mines already discovered. Consequently, however far they may be from the sea, the different groups which they form are sufficiently rich to justify the construction of a railroad. As for the Gafsa mines, a line has been constructed from Mellaoïn to Sfax; for the mines of Ain Sefra, a line from Rudivef to Sousse is being constructed, for the mines of Kalaat-ed-Senam and Kalaat-ed-Djerda, a line has been constructed which goes from these points to Tunis, and branches to the mines of Hamennas, Djerissa, and Slata are to be built; for the mines of Nebeur plans are being made to build a line to Bizerte; and for the mines of Nefzas another line is being built which will be extended to Tabarka. This represents a railway system of nearly 1,000 kilometers (621.37 miles) built for the mines, which assure an exceptionally good traffic.

For the present there is no question of a line to Gabes, but evidently the Tunisian government is thinking of it, for plans are being made to spend 5,000,000 francs (\$965,000) at this point, in order to create a deep-water port. The port will naturally attract the railway. The lines already built are insufficient for the immense traffic. They have been called upon suddenly to handle traffic comparable to that of the largest French lines, and for which they are not properly equipped. The case of the line of Kalaat-ed-Senam is characteristic from this point of view. Four years ago it was built in view of a maximum traffic of 400,000 tons, which it was believed it would never attain. No one foresaw the rapidity with which—the use of it having spread in all European countries—the market for phosphates would increase. No one foresaw the extraordinary demands for iron which were to take place. The two phosphate mines of Kalaat-ed-Senam and Kalaat-ed-Djerda, and the two iron mines of Slata and Djerissa, each wish to be assured of the transportation of 300,000 tons of mineral.

Furthermore, the last district has shown that in a good year the regions traversed have 100,000 tons of cereals for exportation. Consequently, this railway has 1,300,000 tons of freight to transport. It is impossible to do it. The rails are too light, the sidetracks too few, workshops too small, and the material insufficient. The Tunis railway station, quite too small, is very frequently dangerously blocked. The port of Tunis is no longer sufficient; it must be greatly enlarged.

GOVERNMENT EXPENDITURES.

In a report to the director of public works of the regency, it is shown that Tunis ought to expend, in the next ten years, 125,000,000 francs (\$24,125,000) in public works, in order to aid in the development of the country. Tunis can obtain 50,000,000 francs (\$9,650,000) from her ordinary resources; the rest must be secured by means of a loan. The utility of public works was never more evident. The financial condition of the country is so good that each year its budget has been liquidated by large surpluses, which in 1904 exceeded 10,000,000 francs (\$1,930,000).

The foregoing condensation from an official report was submitted to Mr. Proux, American consular agent at Tunis, for his opinion as to its correctness, and his reply is a general confirmation of the facts stated. "The picture is perhaps presented in rather glowing colors," writes Mr. Proux, "yet it is a truthful account of the conditions. The mining resources of the country are great, and some mines are rich enough to repay with their sole traffic the cost of special railways to bring the ore to the coast. The benefit to the country can not yet be estimated in full, but it is evident that it will be felt in many different ways. A new loan for \$15,000,000 is shortly to be issued, besides a portion of the last loan, not put in circulation, has lately been disposed of without publicity. That money will be applied to the construction of railways and the improvement of ports."

SOUTH AFRICA.

THE PORTUGUESE COLONY.

FOREIGN TRADE AND FREIGHT RATES.

Consul W. S. Hollis, of Lourenço Marquez, reports on the foreign trade of Beira, East Africa, of which the following is a summary:

The greater part of the foreign business of Beira is done through German and English commission houses. American goods purchased through these houses and invoiced from London or Hamburg are declared as coming from one of these countries.

Beira is but 455 miles up the coast from Lourenço Marquez, yet the freight rate is \$5 more a ton from New York than it is to this port, making the charges \$15 a ton. On the other hand, freight charges to Beira from England and Germany are only \$10 a ton.

From the latest official sources covering the calendar year 1905 the imports into Beira for local consumption amounted to \$1,494,233, and the exports therefrom \$851,309. The leading articles of import were: Agricultural and scientific instruments, valued at \$89,375; cotton goods, mostly cloth, \$179,000; manufactures of iron and steel, \$46,867; coal, \$31,035; breadstuffs, \$22,423; provisions, \$58,198; sugar, \$10,832; tobacco, etc., \$17,654; distilled liquors, \$18,264; cement, \$12,580; metal manufactures \$17,729; wine, \$68,588, and wood and timber, \$59,142.

The chief items of export consisted of the following articles: Rubber, valued at \$135,154; sugar, \$171,396; minerals, \$55,396; peanuts and other oil seeds, \$42,466; wax, \$44,863; rough timber, \$103,680, and ivory, \$8,910.

The imports for home consumption from the United States amounted to \$10,137; from England, \$297,726; Germany, \$66,864; Portugal, \$161,654; Belgium, \$16,276, and Norway and Sweden, \$22,067. The exports to the United States amounted to \$5; to England, \$37,725; Germany, \$87,971; Portugal, \$183,054; Belgium, \$12,789, and Norway and Sweden, \$926. The imports in transit were valued at \$2,174,099, and the reexports, \$557,125.

MADAGASCAR.

COMMERCE AND FINANCES FOR LAST YEAR.

A Reuter's telegram from Antananarivo furnishes the following summary of the financial position of the Madagascan government on December 31, 1906:

The actual revenue for the year amounted to \$4,626,326, showing a surplus of \$140,358 over the estimates. The total expenditure was \$3,814,953. The commercial situation was as follows: The imports were of a total estimated value of \$7,049,830, an increase of \$1,028,540 on those of 1905; while the exports amounted to \$5,426,775, an increase of \$1,073,880 as compared with the previous year.

OPENING UP INTERIOR AFRICA.

According to the Temps of Paris rapid progress is being made with the railway to the interior on the Ivory Coast of Africa, and during the year 1906 about 25 miles of line were completed. In November last the rail head had reached the forty-fifth mile, where it was necessary to cross the river Agneby by a bridge 246 feet in length. This work was carried out with great rapidity, and on February 8 the engine was on the opposite bank and a start was made on the second section of the undertaking. Rails are now laid as far as the fifty-second mile. The survey has been completed for 83.87 miles. The crossing of the river N'Zi will involve the construction of a bridge 574 feet in length. The section of the railway from Abidjan to Agneby is open for regular traffic.

The Temps also states that it has been decided by the Algerian Government to extend the telegraph line which now terminates at Beni-Abbès to Adrar, in the oasis of Touat. The length of this new line is 248 miles, and the cost is set down at from \$60,000 to \$80,000. When this line has been completed, a further extension to In-Salah is contemplated, with the ultimate object of crossing the desert.

OCEANIA.

COMMONWEALTH OF AUSTRALIA.

TRADING OPERATIONS.

SUGGESTIONS FOR THEIR PROMOTION—AFFECTED BY EXCHANGE.

Special Agent Harry R. Burrill, writing from Sydney, New South Wales, describes how business is carried on between the Commonwealth, Great Britain, and the United States, and points out how that between this country and Australia may be enlarged. He writes:

In all export trade cost at the factory, freight, insurance, and exchange are prime factors in successful competition, and when one exporting country gains an advantage in any of the four items entering into the cost of the commodity laid down at an Australian port, the importer of those particular goods, in order to secure business, is in a position to cut prices to the amount saved and still make a fair margin of profit on the transaction. On shipments to Australia from London or New York the difference in freight rates is not as a rule of sufficient importance to give one importer a distinct advantage over any other. The rates of insurance are practically the same, and, assuming that goods can be manufactured at as low a cost in the United States as in England, the question of exchange is left for consideration in transactions between the American or British manufacturer and the Australian consumer.

LONDON'S ADVANTAGE ON EXCHANGE.

It is evident that by a simple system of bookkeeping London absorbs exchange, thereby giving her a clear $2\frac{1}{2}$ per cent advantage over New York, for exchange must always be figured in the price of goods laid down in the markets of Australia. Under the ordinary operation of exchange, goods purchased in London or New York by Australian importers must be paid for through an English or American banking house, as the case may be, and the cost of the transmission of funds from Sydney to London or New York is, approximately, $2\frac{1}{2}$ per cent. So far no advantage accrues to either of the great commercial centers, but at this point London finds it possible to avoid the payment of exchange demanded by the banks.

For several years the export and import interchange between the United Kingdom and Australia has been so nearly equal that neither country can claim permanently to control the balance of trade, and to this condition may in a large measure be ascribed the opportunity for saving approximately $2\frac{1}{2}$ per cent on every transaction between the two countries.

That the manufacturers and exporters of the United States may have a clearer conception of the operation of exchange and its effect upon trade with Australia, the details of a business transaction between the two countries are presented, and for purposes of comparison the

system obtaining between this Commonwealth and London is also explained. A represents the American manufacturer, B the British manufacturer, and C the Australian consumer.

OPERATION AND EFFECT OF EXCHANGE.

A ships to C goods to the value of \$50,000, c. i. f., Australia. C must pay for these goods in New York, which means that the net cost is \$50,000, plus $2\frac{1}{2}$ per cent exchange.

B ships to Australia goods to the value of \$50,000, c. i. f., Australia. C must pay for these goods in London, but instead of sending money Australian products valued at \$50,000 are shipped by him or some other Australian exporter. An exchange of documents follows, and by a simple method of bookkeeping the \$50,000 represents the net cost to the Australian consumer.

Again, if C ships to Great Britain goods to the value of \$100,000, he has paid for the \$50,000 worth of goods shipped by B and has \$50,000 additional to his credit to pay for goods shipped by A.

B then sells to A the funds belonging to C that are at the time in London. While this transaction costs the banks nothing except book-keeping, it allows B to ship his goods free of exchange to the value of the \$50,000.

When C has balanced his books at no cost for exchange either way, the Australian producer of wool, etc., in order to bring to Australia the balance of his money, must pay bank charges. The banks and merchants in London holding these surplus documents sell them to the American manufacturer, making therefor an additional charge. In other words, because American firms buy Australian goods in or through London they allow the British merchants or manufacturers and the Australian importer of British goods to balance their books at our expense through an exchange of documents. Whatever surplus there may be is sold to the American banking houses, and by the time it reaches the manufacturer the exchange has been equalized, barring its necessary fluctuations.

AMERICAN GOODS SUFFER.

By this it will be seen that a large part of the American goods sold in Australia suffers under a $2\frac{1}{2}$ per cent handicap, which, in a market where competition is so keen and where the importers of the Commonwealth may avail themselves of quotations from practically every manufacturing country on earth, presents a somewhat important financial problem for solution.

The commission houses of the Commonwealth uniformly figure on a $2\frac{1}{2}$ per cent basis. If the market requires a large quantity of a certain commodity, manufactured both in England and the United States, and the representative of the English manufacturer quotes a price $2\frac{1}{2}$ per cent under that of his American competitor, it is not difficult to discover where the order will be placed. This $2\frac{1}{2}$ per cent simply represents the saving in exchange through its absorption under the system in operation between Australia and London, and that percentage, unimportant though it may appear, has in several transactions which have been brought to my attention been sufficiently large to divert the trade from American to English channels.

As to what remedies could be applied, it would obviously be impossible completely to eradicate this $2\frac{1}{2}$ per cent discrimination against American commodities sold on this market, but its adverse influence

could at least be minimized by a more liberal purchase of Australian raw products needed for consumption in United States. If such products could be bought here instead of in London, and landed in New York at prices comparing favorably with those obtainable from other sources of supply, a decided advantage could be gained in the transaction of business between the two countries through a transfer of documents and the saving thereby of the $2\frac{1}{2}$ per cent in exchange. It might be well for Americans interested in Australian trade to make a thorough investigation of this subject through their representatives here and ascertain if closer reciprocal trade relations would not be possible as well as profitable.

If the Australian representative of an American exporter were empowered to buy on this market, he could so time his transactions as to permit of the exchange of documents, and by instituting a system of bookkeeping save exchange both ways. In other words, he would be able, if necessary, to sell his goods here just $2\frac{1}{2}$ per cent less than under the conditions now obtaining, and this cut in price would, as has frequently been demonstrated, inevitably lead to trade expansion.

The quality of American goods is equal if not superior to the English, the trade prejudice or preference in favor of the "mother country" is rapidly disappearing, and business in the Commonwealth is now conducted on a purely commercial footing. Australian importers buy in the cheapest markets, and it is certainly reasonable to assume that if the American exporter has a shade the advantage in price over his European competitor, to just that extent he will benefit in the race for trade supremacy in Australia.

NEW SOUTH WALES.

DIVERSIFIED NATURAL RESOURCES—INVITING FIELD FOR ENTERPRISE.

Writing from Sydney, Mr. Burrill furnishes an interesting report on the natural resources and foreign trade of New South Wales, the oldest and perhaps wealthiest of the Australian States. The report follows:

New South Wales is the mother State of the Australian Commonwealth and is regarded as perhaps the richest of all the States in mineral, agricultural, and pastoral wealth. It lies between Victoria on the south and Queensland on the north, and stretches westward and inland 700 miles to the eastern border of South Australia. Covering an area of 310,700 square miles, with splendid natural resources, developed and undeveloped, the future of New South Wales, aided by immigration and irrigation, presents a bright and attractive picture. Its population is estimated at only 1,600,000, but intelligent and well-directed efforts are being made by the State government to encourage immigration of a desirable kind.

Sydney, the capital, is a progressive, up-to-date city, strong financially, and offering excellent opportunities for export and import business. Possessing one of the finest harbors in the world, Sydney is the southern terminus of the American and Australian steamship line from San Francisco, and the Canadian-Australian line from Vancouver, and is in consequence the natural point of shipment from the Pacific coast for distribution throughout the Common-

wealth. Sydney is also the terminus of the Peninsular and Oriental steamship line, and is a port of call for about every vessel visiting Australian waters.

SUGGESTIONS TO MANUFACTURERS AND EXPORTERS.

Several large exporting houses of the United States are represented here by resident agents, and the steady annual increase in the volume of business transacted proves conclusively the value of direct representation in foreign markets. It is not absolutely essential that an agent for American goods in Australian trade centers should handle one commodity exclusively, for frequently manufactures of various kinds, when they do not conflict, can be combined under one management with advantage to all concerned. This is purely a business detail, but is well worth a careful investigation by the exporters of the United States with a view to placing American products on this market under conditions that would benefit the home manufacturer or exporter and the Australian importer or consumer as well.

The American manufacturer must bear in mind, however, that it requires time to place a new commodity on this market and that no immediate profitable return can be expected. The importers and merchants of Sydney have found as a rule that from the date of the introduction of an article to the time of its permanent establishment approximately three years must elapse, and during that period hard, conscientious work must be done to accomplish the desired end. There are of course exceptions to this rule, but they only occur where a newly imported article springs into immediate favor because of its utility, low cost, or superiority over any similar article on the market.

The first order of the Sydney importer, generally speaking, will be a small one for experimental purposes, and then follows a canvass of the trade catering to a population not much in excess of that of Greater New York and scattered over a territory nearly as large as the United States. This requires time, patience, and money, but when the goods have proved themselves satisfactory in every respect a more substantial order is placed, and by the time the third year has rolled round a permanent paying business has been established, which may be relied on steadily to increase.

KEEN COMPETITION.

Because of competent representation on this market competition between American goods is keen, but good natured and wholesome, and, on the whole, it may be said to stimulate rather than retard trade. It has not, however, been an easy task to introduce American goods in place of similar commodities of English make; but price and quality will influence the New South Wales importer just as they will the buyers in every foreign market, and they have gradually, but none the less certainly, overcome the conservatism or prejudices, if they may be so called, of the business men of this State. By this it is not intended to convey the impression that the popularity of British-made articles is on the wane, but rather to suggest that the popularity of American-made goods is on the increase. There is room for both, and by pursuing the same businesslike, up-to-date methods that have hitherto characterized their efforts along these lines the importers of goods manufactured in the United States have

every reason to expect a still more gratifying expansion in the Australasian trade.

Germany's manufactured goods are also well represented on this market, and there has been quite as large a proportionate expansion of her trade with Australia as has been enjoyed by any other manufacturing country. As a rule the importers and merchants of New South Wales and of Australia generally regard the German-made goods as inferior in quality to those of the United States or Great Britain, but their lower price, longer credit, and prompt shipments have been strong factors in the success of German manufacturers.

IMPORTS AND EXPORTS.

The following tables give the principal articles and their values imported into and exported from New South Wales in the nine months ended October 31, 1906. These figures, which are expressed in pounds sterling (£1 equals \$4.87), are the latest available and are of interest in showing the demand and extent of the market:

Imports.	Australian produce.	Over-sea produce.	Total.
Ale and beer	£12, 183	£99, 167	£111, 350
Animals	1, 106, 087	47, 082	1, 153, 169
Apparel and soft goods	295, 352	3, 899, 326	4, 194, 678
Boots and shoes	136, 409	114, 615	251, 024
Cordage and twines	20, 395	199, 656	220, 051
Drugs and chemicals	30, 864	269, 988	300, 802
Fish, all kinds	6, 635	101, 311	107, 946
Fruits, dry	51, 037	29, 068	80, 105
Fruits, fresh	172, 528	63, 693	236, 221
Furniture	22, 930	69, 328	92, 258
Glass and glassware	8, 911	112, 664	121, 575
Gold, coined and uncoined	2, 211, 171	1, 131, 949	3, 543, 120
Grain, rice		86, 157	86, 157
Hats and caps	41, 254	179, 162	220, 416
Implements, agricultural	72, 443	84, 415	156, 858
Iron and steel:			
Bar, rod, etc.	1, 700	287, 008	288, 708
Galvanized sheet	6	319, 535	319, 541
Leather	85, 188	156, 650	241, 848
Machines and machinery	81, 381	827, 299	908, 680
Metal manufactures:			
Free	4, 464	743, 140	747, 604
Dutiable	70, 604	439, 315	509, 919
Oil, kerosene		111, 360	111, 360
Spirits	25, 030	347, 742	372, 772
Sugar	620, 147	132, 802	752, 949
Tea		332, 141	332, 141
Timber	72, 634	499, 793	572, 427
Tobacco, cigars, etc.	99, 536	234, 753	334, 289
Wine	32, 237	35, 125	67, 362
Wool	953, 314	1, 135	954, 445
Other articles	4, 744, 703	5, 007, 935	9, 552, 628
Total	10, 979, 143	15, 963, 264	26, 942, 407

In the articles above enumerated American manufacturers are represented in boots and shoes, drugs and chemicals, fruits, furniture, agricultural implements, iron and steel, machines and machinery, metal manufactures, kerosene oil, timber, tobacco, cigars, etc., and to a lesser extent in apparel and soft goods and hats and caps.

The exports of Australian produce are shown in the following table:

Exports.	Australian produce.	
	Quantity.	Value.
Animals, horses.....	number.....	3, 529
Butter.....	pounds.....	15, 735, 560
Coal.....	tons.....	1, 647, 781
Copper.....	hundredweights.....	321, 097
Fruits, fresh.....	centals.....	39, 303
Gold bullion, coined.....		5, 678, 430
Grain:		
Wheat.....	busbels.....	4, 044, 475
Flour.....	tons.....	31, 203
Lead.....	hundredweights.....	642, 317
Leather.....		254, 404
Meats:		
Beef.....	pounds.....	3, 285, 641
Mutton and lamb.....	do.....	34, 453, 845
Rabbits and hares.....	pairs.....	5, 640, 030
Meats, preserved.....	pounds.....	3, 843, 940
Oil, cocoanut.....	tons.....	11, 983
Ores.....		623, 140
Silver bullion.....	ounces.....	773, 846
Lead bullion.....	do.....	610, 082
Skins:		
Hides.....	number.....	104, 905
Sheep.....	do.....	2, 334, 842
Rabbit and hare.....	pounds.....	7, 038, 065
Other.....		326, 325
Tallow.....	hundredweights.....	293, 648
Timber.....		870, 689
Tin.....	hundredweights.....	67, 923
Wine.....	gallons.....	38, 353
Wool.....	pounds.....	121, 201, 671
Other articles.....		6, 982, 650
Total.....		1, 368, 622
		22, 796, 212

The latest complete returns showing the trade of New South Wales with other countries indicate that in 1905 she imported from the United Kingdom approximately \$43,000,000; Australian States and other British countries, \$100,000,000; Belgium, \$1,100,000; China, \$140,000; France, \$700,000; Germany, \$4,300,000; Italy, \$350,000; Japan, \$750,000; New Caledonia, \$90,000; Philippine Islands, \$135,000; South Sea Islands \$600,000; United States, \$8,000,000; other foreign countries, \$900,000.

INCREASING FOREIGN COMMERCE.

The exports from New South Wales in 1905 were: To the United Kingdom, \$50,000,000; other British possessions, \$75,000,000; Belgium, \$9,000,000; China, \$1,500,000; France, \$17,500,000; Germany, \$14,000,000; Italy, \$800,000; Japan, \$1,900,000; New Caledonia, \$650,000; Philippine Islands \$900,000; South Sea Islands, \$700,000; United States, \$3,000,000; other foreign countries, \$3,500,000. From the figures now in hand the authorities of New South Wales estimate that the commerce of 1906 will show a substantial increase over 1905.

The products for which New South Wales requires a foreign market are wool, wheat, butter, coal, meat, skins and hides, tallow, timber, and wines, and this list might be materially increased by a more comprehensive adaptation of the scientific principles of agriculture and by a more rapid development of latent resources. The export of wool is by far the most important item, and a large proportion of it goes to the British market. France, Germany, and Belgium are also heavy purchasers, while the United States has more recently entered the market. From July 1 to December 31, 1905, there were 428,797 bales of wool sold on the Sydney market. The quantity sold for the

same period in 1906 amounted to 368,270, a difference of 60,727 bales in favor of 1905. This decrease is, however, only temporary, because of the lateness of the season. An estimate compiled by competent authorities indicates that the wool to be offered in January and February, 1907, will amount to 262,000 bales. Up to this time the United States has imported from Australia approximately 20,000 more bales than in 1905, and of the total Melbourne supplied 53,181 bales, Sydney 13,063, and Adelaide 1,038, making 67,282 bales. It is estimated that the United States will buy at least 15,000 bales in addition to the quantity already purchased, which will make 1906-7 a record year for wool shipments between the two countries.

FARM AND DAIRY PRODUCTS.

The wheat yield for 1906-7 promises to be an excellent one, being largely in excess of the preceding season. In 1903-4 New South Wales produced 27,334,141 bushels of wheat; in 1904-5, 16,464,415; in 1905-6, 20,737,200. The yield for 1906-7 is estimated at 24,000,000 bushels. Assuming this estimate to be correct, the State will have approximately 9,000,000 bushels available for export. The value of the principal crops raised in 1906, according to the bureau of statistics, aggregated \$33,500,000 approximately, as against \$27,000,000 for 1905 and \$40,000,000 for 1904, which was the record year.

The butter trade has made great progress in the past twelve years, and it will compare favorably with any other local industry by which the wealth of the State is increased. In 1895 the value of the butter exported to Great Britain, South Africa, and other countries was approximately \$250,000. In 1905 it amounted to about \$4,000,000, while in 1906 it was over \$5,000,000.

TRADE IN FROZEN MEATS.

A profitable and permanent industry has been built up in the exportation of frozen meats. In 1904 there were exported from this State 34,500 quarters of frozen or chilled beef and 570,934 carcasses of mutton, of a total value of \$1,450,000. There were also exported 8,136,873 pounds of preserved meat, valued at approximately \$675,000. In addition to this there has in recent years developed a considerable trade in frozen rabbits and hares. From January to October, 1906, inclusive, there were exported 3,285,641 pounds of beef, valued at \$180,000; 34,453,845 pounds of mutton and lamb, valued at \$1,185,000; 5,040,030 pairs rabbits and hares, valued at \$1,165,000; 3,843,940 pounds of preserved meat, valued at \$375,000. These figures indicate a substantial increase over the returns for 1904.

COAL INDUSTRY.

Coal, found in such great abundance, forms another important item in the export trade of New South Wales. The principal mines are located at or near Newcastle, and the trade of that port increased in a marked degree last year. The figures supplied by the customs authorities show that more than 500,000 tons of coal were exported in excess of last year, making an increase in value of over \$1,000,000. The exports last year from Newcastle to destinations beyond this State amounted to 3,975,655 tons, but, including the coal sent to Sydney and in steamers' bunkers, the exports exceeded 4,000,000 tons.

Victoria was first as a consumer of Northern coal, taking 817,717 tons. Of foreign countries, Chile took the largest amount—556,484 tons—and then in order came the Philippines, Straits Settlements, Peru, United States, Hongkong, Mexico, Java, and India.

A feature, however, which promises to make the current year one of record prosperity in the coal-mining industry is the high price ruling for coal. From January 1 the price of the best bore-hole coal was fixed at \$2.50 per ton by a combination formed last year. Taking the amount of coal exported last year and calculating at \$2 per ton, which was actually above the average price, the increased selling price will result in a return of approximately \$2,000,000 above the value placed on the coal exported last year. The trade anticipated this year should amount to \$2,500,000, in round numbers.

The Northern collieries, for which Newcastle is the port, produce approximately 70 per cent of the coal mined in the State, and this industry in itself would insure the prosperity of that port. It is, however, not by any means dependent on the coal traffic alone, for wool, frozen meat, agricultural, dairy, and pastoral products from the north and northwestern districts are shipped in quantities from Newcastle. With the opening up of the land and closer settlement of the country in that section of the State the future promises largely increased commercial activity.

DIVERSITY OF MINERAL WEALTH.

There are probably few countries in the world which have been endowed with such a diversity of mineral wealth in proportion to area as the State of New South Wales. The total value of all metals and minerals produced prior to December 31, 1905, was approximately \$820,000,000. The value of minerals raised in 1905 was \$35,000,000, in round numbers—a net increase of approximately \$3,500,000 over the preceding year. Commenting on the production of the mines, the under secretary for mines said:

It is satisfactory to be able to state that the past year has been an exceedingly prosperous one so far as the output of the various metals and minerals is concerned; in fact, the returns show that the production for 1905 constitutes a record, being considerably the largest in the history of the State. With the single exception of tin, there was an increase in the production of all the principal metals.

The total increases recorded in 1905 amounted to approximately \$4,000,000, and the largest individual increase came under the heading of "Silver-lead." The Broken Hill mines have already established an enviable reputation for their production of lead, and, according to the department of mines, it is probable that these mines will take a prominent position among the world's greatest producers of spelter (zinc). The Broken Hill Proprietary Company has a plant for the production of spelter, and, in addition, it maintains an extensive output of zinc concentrates.

The high prices touched by copper, tin, lead, and silver in 1906 have greatly stimulated the mining industry, and it is believed the official figures of the mines department, not yet available, will show another record output. The gold yield for the first nine months of 1906 was 195,885 fine ounces, valued at approximately \$4,160,000, as against 189,288 ounces fine, valued at \$4,000,000, in round numbers, for 1905. This shows an increase of 6,597 fine ounces, equiva-

lent approximately to \$140,000. In the Broken Hill mines, Oregon pine is extensively used, and the prospects for the continuance of this exceptionally fine trade are good.

VESSEL TONNAGE.

A comparison of the figures for shipping in New South Wales for fourteen years shows that vessels from other Australian States furnished the largest tonnage, aggregating 4,008,757, or 45.1 per cent of the whole. The tonnage of the United Kingdom was second, with 1,400,621 tons, or 16.8 per cent; followed by New Zealand, with 782,263, or 8.8 per cent; United States, 447,688 tons, or 5 per cent; Germany, 307,793 tons, or 3.5 per cent of the total. During the fourteen years 1890-1904 the tonnage of the United Kingdom increased by 836,488 tons, or 128 per cent, while British tonnage as a whole increased 3,139,852 tons, or 82 per cent; United States, 225,205 tons, or 101 per cent; Germany, 174,425 tons, or 131 per cent.

The great increase in German tonnage is due, it is explained here, to the large volume of business captured by the heavily subsidized vessels of the various German lines. In fact, considerable impetus has been given to all the foreign shipping trade with Australia through the subsidizing of the lines by several of the foreign governments. As an illustration, the North German Lloyd receives an annual subsidy from the German Government [for the Australian service] of approximately \$575,000, equal to about \$1.65 per mile. To protect the interests of the German agriculturists it is stipulated in the agreement that the vessels shall not carry on their homeward journey frozen meat, dairy produce, or cereals similar to those grown in Germany.

The Japanese Government subsidizes its steamers trading with Australia to the extent of \$250,000 per annum and the Messageries Maritimes receives a subsidy of \$2.08 a mile from the French Government. Of the British the Peninsular and Orient Line receives \$425,000 a year and the Orient-Pacific receives \$600,000 a year for carrying mails to and from Australia. These ships are all reliable and seaworthy and are run on schedule time. Without these requisites a subsidy would be practically useless for the expansion of commerce. If Government assistance is to be given to American shipping, a condition should be attached providing for regular service on schedule time with vessels comparing favorably in all respects with those of Great Britain, Germany, and France.

LAST YEAR'S TRADE.

GENERAL COMMERCIAL PROGRESS—COAL EXPORTS.

Consul F. W. Goding transmits his annual report for 1906, which covers the trade of Newcastle, including the northern half of New South Wales. He says:

The figures show a substantial increase over the returns for 1905. Last year 3,978,655 tons of coal were exported, as compared with 3,461,438 tons for 1905, an increase of 514,217 tons. In the interstate trade all the States took larger quantities than during the previous year, and New Zealand was also a better customer. In the foreign trade the exports to Chile showed a big increase. There were also large increases in the shipments to the Philippines and Straits Settle-

ments, and a fair increase in the trade with Java. The total value of coal exported amounted to \$6,886,525 in 1905 and \$7,917,060 in 1906, an increase of \$1,030,535. Among the leading customers last year, in tons, were: Victoria, 878,954; South Australia, 491,977; West Australia, 162,220; Tasmania, 124,785; New Zealand, 333,916; Chile, 556,484; Peru, 108,884; Philippine Islands, 358,223; Straits Settlements, 195,248; United States, 91,190; Mexico, 81,221; and Java, 76,845.

GENERAL TRADE.

In general exports there was an increase of \$34,540, the amount being \$2,890,030 in 1905 and \$2,924,570 in 1906. The leading articles of export were: Timber, 2,158,905 superficial feet; glycerin, unrefined, 127,598 pounds; copper ingots, 1,766,688 pounds; wool, 15,680 bales; railway sleepers, 411,540; meats, \$2,885,895; silver (bar, ingots, etc.), 46,369 ounces; silver lead, 1,784,160 pounds; and gold (bar, dust, etc.), 4,032 ounces. The imports increased by \$1,160,450. The increases and decreases therein are shown in the following comparative statement:

Articles.	1905.	1906.	Articles.	1905.	1906.
Ale and beer.....	\$25, 910	\$32, 745	Oil, kerosene.....	\$66, 475	\$108, 685
Apparel (soft goods).....	546, 106	647, 200	Ores.....	1, 364, 570	1, 883, 080
Butter.....	120, 515	90, 210	Salt.....	52, 020	43, 025
Fruit.....	45, 196	60, 800	Sugar.....	159, 100	228, 960
Hay and chaff.....	116, 530	188, 965	Timber.....	98, 425	116, 410
Iron and steel, manufactures of:			Vegetables: Potatoes.....	182, 925	96, 630
Galvanized.....	225, 140	270, 530	Wine and spirits.....	63, 100	56, 790
Machinery.....	137, 120	135, 645	All other articles.....	1, 841, 520	2, 256, 635
Oats.....	73, 000	61, 806	Total.....	5, 117, 650	6, 278, 105

The revenues increased from \$748,740 to \$814,205. The number of vessels entered at Newcastle was 1,703, of 2,809,632 tons, against 1,579, of 2,425,148 tons, in 1905; and the number cleared was 1,702, of 2,786,041 tons, and 1,569, of 2,411,628 tons, for 1906 and 1905, respectively.

OPENING FOR AMERICAN SODA FOUNTAINS.

Consul Goding also reports as following relative to the opening which exists in Australia for the introduction of American soda fountains:

The American soda fountain has been until quite recently an unknown quantity in New South Wales, all "soft drinks" being served direct from the bottles. I have succeeded in having introduced one American soda fountain in this city, the purchaser being the leading druggist here, which has given every satisfaction, while a very few have been installed in Sydney within the past year or two. Owing to recent temperance legislation, together with a growing knowledge of the evils following the excessive use of alcoholic beverages, there is a great want felt by the people of this nearly perpetual summer clime for cooling, thirst-relieving, nonintoxicating drinks, served in an attractive manner. A locally manufactured unsatisfactory "pop" and several excellent tonic waters have been placed before the thirsty public with indifferent success, owing to the unattractive manner of serving them. In my judgment this is a most opportune time for American manufacturers of fountains to send a competent man to this country, who will have little difficulty in placing one in nearly every drug store in all of the larger cities and towns of Australia.

COMMONWEALTH'S FOREIGN TRADE.

NOTED INCREASE IN THE IMPORTS OF DRY GOODS.

Consul-General John P. Bray, of Melbourne, makes the following report on commercial and industrial conditions in Australia:

A large increase has taken place in the imports into Australia of dry goods from England during 1906. For the eleven months ended November 30, 1906, the imports of cotton goods amounted to 143,799,200 yards, against 125,365,600 yards for the corresponding eleven months of 1905, the value being \$11,676,709, against \$9,793,427. This includes gray or unbleached cotton goods, which have increased from 13,500,000 to 15,125,000 yards; bleached goods, from 36,500,000 to nearly 45,500,000 yards; prints, from 30,500,000 to 37,000,000 yards, and dyed goods, from 44,750,000 to a little over 45,000,000 yards.

Among other articles woolen goods increased from 3,981,900 to 5,706,800 yards; worsteds, from 6,313,100 to 6,948,200 yards; linen piece goods, from 9,276,900 to 10,039,900 yards; silk broad stuffs, from 151,432 to 190,933 yards; waterproof and other apparel, in value, from \$2,302,252 to \$3,230,917, and haberdashery and millinery, from \$1,097,853 to \$1,166,670. Jute goods increased from 2,480,300 to 4,203,700 yards, and carpets from 878,000 to 923,900 yards. The value of these goods, which are of British produce only, is \$23,862,886, against \$20,267,673 for the corresponding period of 1905, or an increase of \$3,605,213.

SOUTH AUSTRALIA'S FOREIGN TRADE.

The trade of the State of South Australia shows an increase over 1905. The total over-sea imports in 1906 were \$19,442,417, against \$15,728,289 in 1905, while the exports were \$33,437,424 in 1906, against \$26,291,938 the previous year. The increase of \$7,145,486 in over-sea exports is partly due to increased exports of gold, which were larger by \$782,129, but mainly it reflects conditions of production.

The imports of Australian produce into South Australia from other States in 1906 amounted to \$24,643,143, against \$22,474,943 in 1905, part of the total being subsequently included in the over-sea export trade of South Australia and part transferred to New South Wales. Among the principal articles exported from South Australia to over-sea destinations in 1906 were: Wheat, \$9,129,773; flour, \$1,925,076; wool, \$7,908,880; sheepskins, \$1,635,539; frozen mutton and lamb, \$647,225; silver, \$2,744,000; pig lead, \$719,497; copper, \$1,438,391, and gold, \$912,784.

The increase in direct over-sea imports into South Australia includes a variety of articles. Apparel and soft goods increased from \$4,671,786 in 1905 to \$5,322,126 in 1906; jute goods, from \$811,260 to \$1,324,344; machinery, from \$801,050 to \$1,273,221; iron and steel, from \$1,044,385 to \$1,446,513; manufactures of metals, from \$1,194,444 to \$1,497,482; timber, from \$621,198 to \$719,474, and tea, from \$423,331 to \$487,579.

TOBACCO CULTIVATION IN VICTORIA.

The tobacco grown last year in Victoria has commanded a ready market among local manufacturers at higher prices than obtained during the previous five years. On the Government experimental farm 2,000 pounds dry weight of cigar tobacco was grown. Com-

stock, Zimmar, Spanish, Connecticut seed-leaf, and Connecticut broad-leaf varieties all gave good results, the Comstock proving to be the most suitable. The crop of pipe tobacco gathered yielded approximately 1,500 pounds. Seeds of different tobaccos imported have been distributed for cultivation. The experiments of the department are to be carried out on a more extended scale, and every effort is being made by the Government to establish the industry in this State.

THE PHILIPPINES.

FOREIGN TRADE FIGURES FOR FIRST NINE MONTHS OF 1906.

According to the figures furnished by the Bureau of Insular Affairs, the total imports of merchandise into the Philippine Islands during the nine months ended September 30, 1906, amounted to \$18,882,598, of which \$1,635,582 was free of duty and \$17,247,016 dutiable. During the corresponding period of 1905 the imports amounted to \$23,937,752, those free of duty being valued at \$1,345,253 and the dutiable at \$22,592,499. This gives an increase of \$290,329 in the free imports and a decrease of \$5,345,483 in dutiable goods, a net decrease of \$5,055,154. The total exports for the nine months period of 1906 amounted to \$24,105,407, against \$26,026,476 for 1905, a decrease of \$1,921,069.

The imports into and exports from the islands for the nine months, by leading countries, are shown in the following statement:

Country.	Imports.		Exports.	
	1905.	1906.	1905.	1906.
North America:				
United States	\$4,679,508	\$3,032,683	\$11,463,110	\$8,262,091
All other	12,521	8,140	9,427	11,233
Europe:				
United Kingdom.....	3,810,995	3,958,657	6,646,600	5,568,654
Germany	1,135,121	1,030,939	219,249	627,685
France	647,319	560,179	1,405,701	1,944,349
Spain	1,512,425	1,127,124	1,243,692	1,328,963
Italy	130,467	136,158	52,929	44,145
Austria-Hungary	81,303	68,972	231,895	140,879
Belgium	223,995	211,236	22,146	252,285
Netherlands	85,974	152,965	38,756	114,406
Switzerland	392,225	418,346	1,076	2,545
All other	144,903	43,505	18,377	29,283
South America.....		28	14,212	26,443
Asia:				
China	2,151,801	2,027,570	866,219	1,762,916
Hongkong	166,820	265,278	2,327,868	2,790,987
Japan	697,778	610,078	581,481	308,471
British East Indies.....	1,570,856	1,058,740	482,125	502,736
Dutch East Indies	62,069	158,289	28,914	21,889
French East Indies	4,301,523	2,615,662	6,972	4,021
All other	970,405	176,990	6,549	11,057
Oceania:				
Australasia	1,157,715	1,224,530	358,995	340,028
All other	300	257	2,434	1,772
Africa	1,709	1,272	2,750	8,569
Total, all countries	23,937,752	18,882,598	26,026,476	24,105,407

The imports were brought in vessels of the following nationalities: American, \$1,719,980; British, \$10,387,413; French, \$150,775; German, \$2,012,940; Spanish, \$4,173,959; Norwegian, \$160,173; and all other, \$277,358.

The imports into the Philippines from the United States for the fiscal year ending June 30, 1906, amounted to \$4,333,893, a decrease of \$1,427,605 from the previous year.

TRADE WITH SPAIN.

SPANISH EXPORTS TO THE ISLANDS HOLD UP WELL.

Consul-General B. H. Ridgely, of Barcelona, reports on the trade between Spain and the Philippine Islands as follows:

Covering the period of nine months ended March 31, 1906, the exports from Spain to the Philippines amounted to \$1,439,627, against \$1,441,701 for the same period of 1905. The leading articles are shown in the following comparative statement:

Articles.	1905.	1906.	Articles.	1905.	1906.
Books, maps, etc	\$52,090	\$40,075	Leather and manufactures of:		
Candles	9,329	13,078	Boots and shoes	\$128,881	\$128,900
Medicines	5,874	6,671	All other	24,864	6,608
Cork and manufactures of ..	10,447	8,006	Musical instruments	7,110	4,928
Cotton goods	649,426	717,818	Olive oil	26,124	22,846
Fertilizers	20,046	14,929	Paper and envelopes	46,370	17,644
Fibers, vegetable and textile			Paper pulp	45,008	21,857
grasses, manufactures of ..	8,736	23,242	Provisions	29,980	26,000
Fish	56,971	71,107	Sugar, molasses, etc	9,786	9,103
Fruit and nuts	26,528	30,878	Vegetables	41,423	45,829
Glass	10,833	14,304	Wine	97,578	86,195
Hats and caps	9,431	7,585	Woolen goods	3,915	3,446

The imports into Spain from the Philippines during the nine months ended March 31, 1906, amounted to \$1,306,552, an increase of \$210,179 over the same period of 1905. The leading articles of import were: Copra, valued at \$569,810; hemp, \$26,810; and tobacco, cigars, and cigarettes, \$708,179.

The total imports into the Philippine Islands during the nine months period ended March 31, 1906, amounted to \$19,835,272.

Spain imports raw cotton from the United States and manufactures it with machinery bought in England, and with expensive coal imported from Wales. Spain has cheaper labor, but all other conditions are against her as compared with the United States.

NORTH AMERICA.

MEXICO.

MERCANTILE ACTIVITY.

MANY COMMODITIES IN GROWING DEMAND AT MONTEREY.

Consul-General Philip C. Hanna, of Monterey, makes the following report on mercantile lines, the sales of which show a tendency to expand in that part of Mexico:

There are no shoe factories in this part of Mexico. Common Mexican shoes are made in many small shops and worn by the poorer people, while nearly all shoes worn by the upper-class Mexicans come from the United States or Spain. Those of American manufacture are popular among all classes and generally worn by all persons who can afford them. Those of Spanish make usually have sharp-pointed toes, high heels, and often fancy decorations, but they are not as popular here as American shoes, and their sale is by no means as large. For dress occasions and everyday wear high-quality shoes of American manufacture are in demand, and it is believed their sale will steadily increase. Low patent leathers are exceedingly popular; white, brown, cream, and shades are in demand for summer wear.

The Mexican people, as a rule, have smaller feet than Americans, and small sizes with high insteps are generally better suited for this market. There is a large mail-order business in American shoes between Monterey and American cities, the duty on the same being settled at the post-office on delivery. Several stores in Monterey handle none but American shoes.

HABERDASHERY, CLOTHING, AND TRUNKS.

The popularity of American "gent's furnishing goods" is evidenced by the large stock kept by several houses here and the fine displays which they appear proud in making in the most conspicuous parts of their stores. In the large show windows and show cases are constantly exhibited shirts, underwear, ties, and all such articles as are usually kept in well-stocked men's furnishing stores. A very gratifying feature is that nearly all such goods come from the United States. With the increasing prosperity of Mexico the people are dressing well, and the trade in goods for men is rapidly growing. Not long ago no ready-made clothing, excepting a very cheap quality, could be found in this city. I note that during the past two years quite a large amount of American clothing has been brought to Monterey, which appears to be in popular demand. In nearly every store handling men's furnishings are to be found American trunks, valises, and traveling bags, in which there appears to be a good trade.

HATS FOR MEN AND WOMEN.

The decided change of fashion in head gear in this part of Mexico has produced a great demand for American hats for men and has led

to the opening of a market for millinery goods for ladies. In days gone by nearly all male Mexicans wore sombreros, and ladies' hats were a curiosity. The sombrero, in its better and more fancy class, is now seldom worn by Mexicans, excepting when riding, driving, or hunting. Mexicans of the higher and middle classes nearly all wear American-made hats, and sombreros are rarely seen except when worn by the poor people, who only wear the cheaper grades. American silk, stiff, and soft hats of best grades are popular among Mexicans of means. Good grades are commonly worn by the middle classes and cheaper grades by the poorer men. I think it is safe to state that nine out of every ten hats seen in the parks on Sundays and holidays were made in the United States. Hats form an expensive part of a man's dress bill; a hat which retails for \$5 in an American city sells here for about \$15 silver (\$7.47 United States currency), and a \$3 hat retails for about \$10 (\$4.98 United States currency), but in spite of the cost the demand is increasing.

As Mexican duties are estimated on the weight, hats of light weight and latest patterns are best suited for this market. Ladies' hats are now worn by nearly all Mexican women of the higher class, and are becoming quite common, even with the lower classes. France holds the lead in ladies' hats.

HEATING AND COOKING STOVES.

While real winter is practically unknown in Mexico, there are many days here when heating stoves afford solid comfort, and their demand is increasing. The cool season in the cities of low altitude, like Monterey, is of brief duration, but many heating stoves are used and they are as popular as they are comfortable. In cities of high altitude small heaters afford comfort during the whole year, and thousands of small American stoves might be sold throughout the elevated parts of Mexico annually. In most parts of this Republic there is no real cold weather and only small heaters are required to dispel the discomforts of the many chilly days. Small cast-iron and sheet-iron heaters are evidently the proper heating stoves for Mexico. Stoves of thin material throw out the heat more readily and require less fuel, which in many parts of the country is scarce and expensive. Manufacturers might with profit produce such special light-weight patterns as will insure their popularity and increase their demand. This is becoming a good market for American cooking stoves; large American cooking stoves are in demand at hotels and restaurants and by the more wealthy families, but cook stoves of smaller type, light weight, and low price find a greater demand.

ACTIVE TOOL TRADE.

Among the lines of trade in northern Mexico most valuable to American concerns are those in axes, spades, shovels, picks, wheelbarrows, and miners' tools. I am informed by American commercial travelers that in some parts of this Republic the old style broadaxes are still in use, and that it is difficult to introduce the narrow American axe because the people are not educated to its use. They tell me that in some parts of the country they are only able to obtain orders for American axes in small lots of a few dozen, whereas the broad blade Spanish axes are used by the thousands.

I am further informed that in the northern part of the Republic, where the people are well acquainted with the superior merits of

American axes, they are in great demand, and where formerly these were sold in lots of 5 to 10 dozen they are now sold by the carload. A traveling man for an American company informed me that he took an order here recently for 7 carloads of ordinary American axes.

There is also said to be a large and rapidly increasing trade through all northern Mexico in spades, shovels, picks, wheelbarrows, and all kinds of miners' tools. Such goods are sold in carload lots, and this valuable line of trade, which is constantly growing, is naturally open to American manufacturers, who, not only on account of the popularity of the goods but convenient transportation lines, are best in position to supply the demand, which is very great on account of mining developments and railroad construction.

PRINTERS' SUPPLIES.

Printing offices of modern type, equipped with latest presses and all such late-patterned machinery as go to make an up-to-date printing house, are to be found in Monterey. Practically all this machinery and printing equipment comes from the United States. Not only are the machinery, type, and furniture American, but the paper and ink. Good qualities of such material are demanded, and the trade with printing establishments is worth keeping and cultivating. Many thousands of dollars' worth of machinery, equipments, type, ink, paper, envelopes, and supplies are used here annually, practically all of which are American-made.

[The principal printing establishments and newspaper plants which constantly demand printer supplies are named by the consul-general, who also furnishes to the Bureau of Manufactures lists of the principal shoe dealers of Monterey, and the clothing and millinery stores, and hardware and implement dealers there. Any of these lists may be obtained by interested exporters or manufacturers.]

LAND TENURE.

INCREASED PUBLIC INTEREST IN THE UNDEVELOPED AREAS.

Consul James A. Le Roy reports from Durango as follows on the land situation in the State of Durango, which he says is perhaps fairly typical of the conditions as to land tenure in the greater part of Mexico:

Statistics just published for this State show that there are 55 proprietors who own more than 20,000 hectares, or 50,000 acres, each. These 55 proprietors own in all 3,869,942 hectares, or 9,458,757 acres, of land. This is much the larger part of the area held in private ownership within the State, the total extent of which covers 10,949,500 hectares, and a very large part of which is mountainous. There are in the State seven estates having an extent of over 250,000 acres, one of them covering over 1,000,000 acres.

Taxes on land have always been merely nominal in Mexico, though from time to time there has been discussion as to the imposition of higher taxes and sometimes propositions to use the taxing power with the deliberate purpose of breaking up the large holdings. The governor of Durango discussed this subject in a message on the conditions of the State as far back as 1848.

The acquisition of grazing and timber lands, and in some cases of large tracts of irrigable land (often for the planting of colonies of immigrants), by foreigners, principally Americans, is arousing discussion. The rising middle class, for the most part landless, seems particularly concerned over the matter, and there is apparent a growing disposition among the Mexicans in the larger towns who have capital to emulate the foreigner in the speculative purchase of the hitherto undeveloped lands which, as communications improve, may become valuable for the timber thereon and subsequently for grazing and agricultural purposes. This movement coincides with a more active interest in such purchases on the part of Americans. At least, this has been notably the case in Durango since the latter part of 1906, and the land market here now is more active than ever before.

The remaining areas of public land in this State are now in large part either purely inaccessible mountainous tracts or detached and comparatively small tracts of valley land scattered here and there. Recently the Federal Government doubled the price for which its lands in the State of Durango are to be sold, raising it to \$4 Mexican per hectare, or about 80 cents gold per acre.

MUSICAL GOODS.

SPLENDID FIELD FOR TALKING AND MUSICAL MACHINES.

Consul W. W. Canada, of Veracruz, reports on the sale of musical and other instruments in Mexico as follows:

There are two music dealers in Veracruz. In all the larger towns throughout the interior musical instruments may be purchased, but there are few who make this a special business; it is generally conducted in combination with other goods. Mexico City is the central point in this country for music dealers. This consular district offers a splendid field for the sale of talking machines, having a population of not less than 3,000,000, which number is increasing daily. It must not be supposed that the machines are unknown, but they have never been put before the public systematically. It is extremely doubtful if an old established business house here could be induced to send in an order, pay for the same at the place of shipment, take all shipping and packing risks, pay duties and take their chances on wrong declarations of merchandise on consular manifest, usually resulting in fines and double duties, and finally spend from four to seven days in clearing the goods from the custom-house, on the unsupported statement of the manufacturer in his circulars.

It has repeatedly been said that the American manufacturer who desires to cultivate trade with this country must do so in a systematic and thorough manner with a representative. After the manufacturer has established the business at this port he could proceed to another town, and so the entire field could be covered, and it is a large one.

The Mexican is a lover of music. It is nothing strange to hear a peon whistling selections from the latest operas. Music to be popular here must be such as is or can be understood by the people, whose taste in this direction is the direct result of Spanish teachings. Mexico boasts of a number of good composers, and the so-called folk songs are very numerous and in many instances pleasing even to for-

eigners. Dance music is preferred by the masses, and this is almost universal, if the national dances peculiar to the different sections of this country are accepted.

[List of music dealers in Veracruz can be seen at the Bureau of Manufactures.]

TRADE IN YUCATAN.

INCREASED HENEQUEN EXPORTS—CHILE INTERESTED.

Consul-General A. L. M. Gottschalk makes the following commercial report from Mexico City:

According to recently published statistics, the exportation of sisal hemp from the port of Progreso, Yucatan, during the month of January is reported at 55,217 bales, of which 53,431 went to the United States. These exportations are largely in advance of those of a corresponding period of any preceding year. They exceeded by nearly 22,000 the exports of January of last year.

With the recent opening of the Tehuantepec route the attention of the Republics of the west coast of South America has been attracted to Mexico as a source of supplies, owing to its increased export facilities for South America through the port of Salina Cruz. The visit is soon expected in this city of a Chilean commission consisting of prominent merchants, who will investigate conditions with regard to Mexican exports, particularly fibers. Representatives of the Yucatan fiber plantations are to meet this commission and hold conferences with them in the City of Mexico during their stay. It is said also to be part of the Chilean delegates' mission to investigate the availability of the Tehuantepec route as an outlet for Chilean products to be sent up the Pacific coast across the Isthmus at Salina Cruz for reshipment to destination from Coatzacoalcos (Puerto Mexico).

MAIL-ORDER BUSINESS.

MAY BE EXTENDED BETWEEN MEXICO AND THE UNITED STATES.

Consul G. B. McGoogan, of La Paz, suggests that one of the best methods of increasing trade of the United States with Mexico would be in paying more attention to the mail-order business. He adds:

This would result in a larger exportation of manufactured articles to Mexico, and indirectly in a widespread advertisement of American goods. The remote parts of the country would be reached where transportation is high and agents' commissions are heavy, thereby rendering the mails the most economical method of shipment.

To increase this trade judicious efforts are necessary. Mail-order houses should distribute their catalogues generally among the people. The catalogue should be confined to articles that can be safely and profitably sent by mail. They should be well illustrated and printed in the Spanish language. The weights and measures should be given in the metric system. The prices should be quoted in Mexican money, and state the rate of Mexican tariff on each article. In short, the catalogue of much value to the dealer must convey information of quantity, quality, and price in intelligent form to the buyer.

WEST COAST.

RAILROAD FROM THE UNITED STATES IS STIMULATING BUSINESS.

Consul Louis Kaiser, of Mazatlan, in the following report calls attention to the railway development and consequent business stimulation in that part of Mexico:

Mazatlan, which is the commercial center of the west coast of Mexico, is on the eve of making the greatest stride in commercial prosperity in its history. Heretofore there has been neither railway communication with the United States nor with the interior of this Republic. This is all being changed by the building of a branch line of the Southern Pacific from Guaymas to this port and from here to Guadalajara, being over a thousand miles in length. The lack of railroad transportation has been the main cause of keeping the State of Sinaloa from taking her position as one of the leading and largest States, it having 35,000 square miles of splendid farming land and thousands of rich undeveloped mines.

The importing business of the west coast of Mexico is controlled by German, English, and Spanish merchants, and it would now pay American firms to do some active work to secure import business at this port. The exports from Mazatlan to the United States for the fiscal year 1906 amounted to \$2,880,182 American currency, while the imports from the United States for the same period were valued at only \$790,194. [Names of importers at Mazatlan are given by the consul, which can be obtained from the Bureau of Manufactures. The list includes the following lines of goods: Electric, railway, iron and steel, hardware, glassware, bottles, sanitary supplies, and factory and mining machinery.]

SILVER EQUIVALENTS OF THE PESO.

The President of the Mexican Republic has, according to the Bulletin of the American Republics, established, for the six months ending July 31, 1907, and for use in statistical calculations only, the following table of equivalents between the Mexican peso (silver dollar) and the coins of the countries where the silver standard obtains:

Country.	Coin.	Value in Mexican currency.	Country.	Coin.	Value in Mexican currency.
Bolivia	Boliviano.....	\$0.98	Nicaragua	Peso	\$0.98
Guatemala	Peso .....	.98	Persia	Kran	18
Salvador	do .....	.98	China	Tael	1.705
Honduras	do .....	.98			

[A Mexican silver dollar is worth \$0.498 in American money. There are sixteen different taels in China, no two of the same value, but the haikwan, the customs tael, is worth 85 cents in United States money.]

CANADA.

PROVINCE OF QUEBEC.

THE LORD'S-DAY ACT REQUIRES STRICT OBSERVANCE.

Consul H. A. Conant, of Windsor, sends a transcript of the most important clauses in what is termed the Canadian Lord's-day act, which became operative on March 1.

The act provides that it shall be unlawful on Sunday to engage in any public game or contest for gain, etc., or to be present at any performance or public meeting, elsewhere than in a church, at which a fee is charged, or to run, conduct, or convey any excursion on which passengers are conveyed for hire, or to advertise any performance, or to bring into Canada for sale or distribution or to sell or distribute on "the Lord's day" any foreign newspaper or publication classified as a newspaper. The act also provides that every corporation which directs, authorizes, or permits its employees to carry on any part of its business on that day shall be liable to a fine, but nothing shall prevent the operation on Sunday of a railway for passenger traffic when the company has been incorporated by legislative authority.

BOUNTIES PAID BY GOVERNMENT.

The bounties, subsidies, and subventions paid by the Canadian government during the year ended June 30, 1906, amounted to \$5,265,906, according to the *Toronto Sun*. The distribution thereof was as follows: To manufacturers of iron and steel a trifle over \$2,000,000; railway promoters, \$1,637,574 in subsidies; mail subsidies and steamship subventions, \$1,232,175; bounties on crude petroleum produced in Canada, \$291,157; lead bounties, \$90,000; binder twine manufacture, \$15,000. Of the subventions to steamships, \$122,000 was paid to a line to France, \$133,000 to the line to South Africa, \$80,000 to the line to the West Indies and South America, and \$55,000 to the Mexican line. The steel bounties were as follows per ton: Pig iron \$1.65, and \$1.65 more when the pig iron is made into steel ingots, and \$3.30 more when the steel is manufactured into wire rods.

TAX ON COMMERCIAL TRAVELERS REPEALED.

Consul-General Church Howe, of Montreal, reports that the license or tax imposed some two years ago by the Province of Quebec on nonresident commercial travelers representing persons, firms, or corporations having no place of business in Canada, was repealed by the provincial legislature on March 14.

There is now, therefore, no license required in this Province by nonresident commercial travelers, except those selling intoxicating liquors, which latter will be regulated by the new liquor license, particulars of which will be sent later. It is also reported in the press that British Columbia has repealed the tax on commercial travelers (other than those representing liquor and cigar firms), thus "falling into line with the other Provinces of the Dominion." Prince Edward Islands, however, still imposes on nonresident commercial travelers a license fee of \$20.

NOVA SCOTIA.

OPPORTUNITIES FOR AMERICAN TRADE.

The following is taken from the report for the calendar year 1906 furnished by Consul E. A. Creevey, of Yarmouth: •

This office is in receipt of many communications from American manufacturers and merchants who are anxious to know how they may increase or extend their trade. It should be borne in mind that this section of Nova Scotia is not thickly settled, and no great trade can be expected. The stocks of the stores here comprise almost every commercial article known in the eastern part of the United States. Nova Scotia can not be described as a field for great commercial development, as emigration to the United States serves to prevent any considerable increase of population, if not to cause a decrease. In addition, the Canadian manufacturers of products which compete with those of the United States are said by dealers here to fix their prices at a point slightly below those of American-made goods, plus the Canadian customs duty, and to hold themselves ready to meet any reduction which might be made by American exporters. Apparently the proper method of developing the market for American goods would be the covering of the territory by energetic salesmen and the popularizing of their wares by effective advertising.

MARINE MOTORS.

The coast of Nova Scotia affords a good field for the sale of marine motors. American manufacturers desirous of securing a share of this trade, however, should recognize the fact that they must compete with Canadian motor builders, who have the advantage of customs duty levied on American motors. The Canadian concerns, further, give liberal credit to purchasers of motors, which, in the great majority of instances, is necessitated by the intention of the purchaser to earn the price of the motor through its use.

KINGSTON'S TRADE.

ADVICE TO AMERICAN EXPORTERS—HOW TRADE CAN BE INCREASED.

Consul H. D. Van Sant, of Kingston, reports on how American trade can be increased in that Canadian district, as follows:

American exporters can not stay at home and expect letters, circulars, or even export agents or consuls to get the business for them. These factors all help. It is well enough to obtain a list of the principal importers, merchants, and dealers in American-made goods in the district. Next to direct commercial sources, newspaper and magazine advertisements should be credited as the most important influence in building up American trade in Canada, while the commercial sentiment produced by the American settlers in western Canada adds largely to the volume of American trade. Each city, county, district, or province has special conditions demanding certain lines of goods, which, if properly reported, should result in larger sales. A style or quality of make adapted for a French Canadian or for the pioneer west does not sell so well in richer and staid English sections of Ontario. In almost every county there is a slight difference in the wants of trade.

English houses are sending more advertising matter, brief and simply arranged, yet of attractive design, together with lowest export price lists, throughout this district. Yet the American exporter has the advantage in distance, freight charges, and cost of delivery, which a preferential duty in favor of the British will not offset.

The imports into the Kingston district during 1906 are shown in the following table:

Country.	Dutiable.	Free.	Country.	Dutiable.	Free.
Great Britain.....	\$220,581	\$50,108	Other countries.....	\$34,957	\$62,063
United States.....	467,630	850,622			
Germany.....	17,155	4,841	Total.....	740,329	967,632

The total imports, dutiable and free, amounted to \$1,707,961. The total imports into the district from the United States in 1906 amounted to \$1,318,258, against \$1,258,682 in 1905.

WEST INDIES.

JAMAICA.

AN EXCELLENT CHANCE FOR AMERICAN BUSINESS HOUSES.

Vice-Consul W. H. Orrett calls attention to the commercial changes taking place in Jamaica since the earthquake, and the consequent American trade opening. He writes from Kingston:

The present is a very opportune time to increase the trade of the United States with this island, as there is a large field at present in Jamaica for the opening of strictly wholesale American houses and commercial agencies, as the earthquake and fire have ruined many of the local traders, especially those who carried, unfortunately, large stocks heavily insured, with no prospect of the insurance companies paying the loss sustained, or even the remote possibility of some equitable adjustment being effected.

It is obvious, therefore, that new houses must take the place of those who, from circumstances that command much sympathy, are forced to retire. For example, the affairs of one such firm, the oldest and largest wholesale lumber, hardware, and agricultural-implement house in the West Indies, are now being wound up, on their own petition, by legal process, in consequence of not being able to recover the amount for which their large stock was insured. This is only one of many such cases.

It does appear hard hearted to recognize that one set of traders invariably benefit by the adverse position of another, but in the steady march of trade sentiment can not be considered, and therefore the American manufacturer to-day has, it would appear, an opening unparalleled in the history of Jamaica's trade, as Kingston with its grand harbor is the entrepôt of the commerce of the island. All the important banks, institutions, and government buildings are centered here, and with the advent of a new city, why should not American manufacturers and business men take a prominent part in the rehabilitation of the city? Fortunes have been made by British merchants, and with the well-known enterprise of leading American traders, history can be made to repeat itself.

The opening for traffic of Mexico's Tehuantepec Railway promises to be a great aid to the trade between the Atlantic and the Pacific ports, at least until the Panama Canal is finished and opened for the trade of the world, so that California and other Western States bordering on the Pacific have now every inducement to extend their trade with the West Indies generally and Jamaica in particular.

REBUILDING KINGSTON.

CONSTRUCTION MATERIALS NEEDED FOR JAMAICA'S CHIEF CITY.

With reference to the late earthquake and fire, Vice-Consul W. H. Orrett, of Kingston, reports that although the catastrophe was naturally in every respect deplorable, yet it has taught the people of Jamaica invaluable lessons in building construction. Mr. Orrett writes as follows on building plans:

While the magnitude of the disaster can not be compared to that of San Francisco in the number of buildings destroyed or the money value generally, yet I venture to say that in proportion to its size the loss in Kingston has been greater, and the government very wisely has under consideration a building law which aims at a uniform class of reconstructed buildings to more readily stand the violence of nature or fire, and it would appear that steel with reinforced concrete will play an important part in this reconstruction of the principal business houses and banks, so that the present would, in my opinion, be an opportune time for American steel, iron, and cement manufacturers who make a specialty of such work to do some preliminary work in exploiting the situation.

The citizens having appealed to the British Government for an imperial loan of some \$5,250,000 to be used for reconstruction purposes, I take it that if it is granted very stringent provisions will be made in its application, so as to insure buildings being erected as earthquake and fire proof as possible so as to safeguard the loan or grant; hence it is obvious that these buildings will be constructed principally of steel and reinforced concrete, and thus American manufacturers, from their proximity to this island, should, in the matter of freight and passage of skilled workmen, etc., have a very material advantage over European competitors. There will also be an abnormal demand for builders' hardware, cement, lumber, structural iron or steel, etc., for the next three years or more, and it will pay the American producer to study the field. The demand will be especially strong for structural steel and corrugated iron. More of the latter will be used now than ever, not only for roofing, but for sheeting or siding for buildings.

TRINIDAD.

OPENING IN TRINIDAD FOR INCREASED AMERICAN SILVERWARE TRADE.

Replying to an inquiry from an Eastern manufacturer, Consul William W. Handley reports as follows concerning electroplated hollow ware in Trinidad and the outlook for the enlargement of American trade therein:

very abundant in certain parts, as well as many other hard woods, some of which no doubt would be valuable, but are not much used at present. Large tracts of pine are found in the interior. The pine here produces an excellent grade of turpentine, but very little has been done in this line to the present time. The timber resources of Honduras can not be developed until the country is better equipped with railroad transportation. The facilities for rafting are not good. Still, many concessions for cutting mahogany and other timber have been given, tramways are being constructed for getting it out of the forests, and the exportation of timber should show a great increase before long.

LACK OF TRANSPORTATION FACILITIES.

The great drawback to the commercial development of Honduras has been the lack of transportation facilities. Four years ago there was not a single foot of steam railroad operated in this district. At present there are about 40 miles in successful operation, and active work on extensions is being carried forward. Concessions for the construction of about 150 more miles have been granted. No railroad at present runs into this town. The rolling-stock equipment of the roads now operating consists of five locomotives and about 40 cars.

The number of American citizens residing in Honduras and the amount of American capital invested in various enterprises in the country are rapidly increasing. There are about 1,400 Americans now residing in this district, and 75 per cent of the important enterprises here are engineered by American capital. About 65 per cent of the foreign trade of the Atlantic coast is with the United States.

COMMODITIES THAT ARE SOLD.

American shoes control the market and are imported in large quantities. They give good satisfaction, and it is almost a certainty that their importation will show a large increase in the future.

Apparatus for acetylene lighting is in fair demand. This is a trade which has recently sprung up and is increasing rapidly. Acetylene is peculiarly well adapted for such a country as Honduras.

About 18 steam launches are now in use in this district. More will probably be needed soon. They are generally used for towing lighters to and from steamers. Most of them have been imported entire from the United States, but a few have been built here and equipped with American engines.

Quite a number of American saddles have been imported into Honduras. Not many wagons are used here, as most of the hauling outside the towns is done in ox carts over roads impassable for lighter vehicles; but the number of wagons used is slowly increasing.

The cultivation of bananas does not require the use of many agricultural implements. The famous "machete," or cane knife, does most of the work. American machetes of the better grades are selling more than formerly. Plows show an increased sale.

American hardware is about the only kind used here, but in cheap cutlery English and German is given the preference.

Provisions and canned goods are imported in large quantities, mostly from the United States. In a country like Honduras, desti-

tute of transportation, people have to depend very largely on canned goods. Certain kinds of jams are imported, generally from England. It appears that American goods of this grade can not compete with the English on account of price, although equal in quality.

OPPORTUNITY FOR AMERICAN PRODUCTS.

A fine opportunity exists for American candies if manufacturers would devote their attention to goods suitable for the market.

Cheaper grades of cotton goods come almost entirely from the United States; European manufacturers have cut in on the finer kinds. There is a good prospect in Honduras for American cotton goods.

Loading and unloading in this district is done in the open sea, is stopped entirely when heavy weather prevails, and is often interfered with by sea breezes. Vessels lose much valuable time on this account. No wharves or other loading facilities exist at present. Some of the river channels could, no doubt, be improved to admit the passage of vessels, which could carry on operations with much less expense than at present.

Talking machines, firearms and revolvers, furniture, pumps, and desks are selling in much larger quantities than formerly.

Earthenware comes almost entirely from Europe.

Refrigerators have not yet come into general use, but are doing so now. Formerly all ice consumed here was obtained from the steamers at irregular periods. About three years ago an American ice plant was constructed and has been in successful operation ever since. The people are getting accustomed to the use of ice, and refrigerators will soon come into general use.

Cement comes almost entirely from the United States. The railroads and other constructive works planned will require a much larger quantity than has heretofore been used.

Typewriters and cash registers are used very little as yet.

The importation of lubricating oils and paints shows a decided increase. The constructions before mentioned as requiring cement will also need larger amounts of paints and oils.

Wines come mostly from Europe; beer from the United States. A very good market could be found in Honduras for California wines.

BRITISH HONDURAS.

EXPANDING TRADE—IMPROVED TRANSPORTATION FACILITIES.

Consul W. L. Avery, of Belize, furnishes his annual report for 1906, covering the trade and other conditions in British Honduras. He writes:

The year 1906 has been one of progress, prosperity, and freedom from pestilence; sanitation and rigid quarantine having freed the colony from the yellow-fever scourge of 1905, and though the actual death list in that year was small, the depression and material loss were deplorable. The health of Belize and of British Honduras was better in 1906 than for the years preceding 1905. The three great needs of this colony are sanitation, transportation, and cultivation, and the trade conditions will be vastly bettered as these are advanced.

Sanitation is nearly perfect in the towns where screening receptacles for water, the filling of swampy lots, and a thorough and continuous cleaning of streets, yards, and drains have resulted in the sound health conditions now enjoyed. Transportation by motor boats on the rivers, new wagon roads to the plantations, and the money voted for a 20-mile tramway from the town of Stann Creek to the Crown lands westward show that industrial needs have received attention. In cultivation and the new acreage devoted thereto the greatest progress has been made. The application of the United States Fruit Company to purchase 15,000 acres in the Stann Creek district for banana planting and the clearing and development of similar areas of 1,000 and 2,000 acres on the Sittée, Temash, and other rivers will result in steamers being able to load entire cargoes in this colony, perhaps in 1907, something they have never been able to do in the history of the fruit trade.

PUBLIC IMPROVEMENTS AND AMERICAN GOODS.

The connection of the Colonial and Mexican telegraph systems has proved satisfactory, and communication has been almost constant. Two years ago telegrams were received by mail, three days en route from New Orleans. On May 1, 1906, electric light was used for the first time in Belize. The plant and installation are American.

The \$36,732 worth of machinery imported into the colony is accounted for by electrical demands and the growing popularity of the gasoline motor. There are over thirty motor boats in British Honduras. The longest route, of 140 miles, Belize to Cayo, is now covered in thirty-six hours, the best former time having been five to seven days.

The United States supply this market with about all packing-house products imported. While the pure-food law is commended, the fact remains that even without it nothing happened to goods or prices in Belize.

The mail service, Belize to New Orleans, is weekly, and the contract with the United Fruit Company that expired in December has been renewed for five years, with the subsidy of \$12,000 per annum, as before. The exports to the United States in 1906 were of the declared value of \$817,192 and consisted of the following articles:

Articles.	Value.	Articles.	Value.
Bananas	\$178,608	Plantains.....	\$12,756
Cocoanuts.....	85,250	Rubber.....	24,097
Chicle gum.....	260,896	Sponges.....	2,923
Cedar.....	12,738	Other articles.....	2,369
Hides.....	2,237		
Logwood.....	7,042	Total.....	817,192
Mahogany.....	238,277		

The total imports were valued at \$2,019,000. The United States furnished \$1,008,000 worth, the principal articles being bacon and hams, boots and shoes, butter, cotton goods, cheese, drugs, flour, hardware, hats, corn, lard, canned provisions, rope, beer, pork and beef, lumber, mineral oils, spirits, sugar, tobacco, machinery, candles, etc. Had the supply of dressed lumber in the southern ports of the United States been equal to local demand for it here several million

more feet would have been imported, and if even proper care were given in all the States to packing such articles as cottons, glassware, drugs, hardware, etc., the balance of trade, already in our favor, would be greater. The condition of such shipments on arrival in Belize shows extreme carelessness in packing for export. The availability of the American Gulf ports for British Honduras trade, with the excellent sea service and the apparent desire to increase the trade, ought to influence American exporters to give closer attention to packing and handling of goods, that their reception here might not cause such incessant, though just, complaints.

The American drummer did not appear in usual force during 1906. Compulsory detention of all departing passengers for six days in quarantine quarters before embarking caused American commercial travelers to avoid Belize. Should no contagious diseases appear in this colony or in the near-by republics there will be no restrictions for passengers during 1907.

WORK ON GOVERNMENT UTILITIES—DEMAND FOR MACHINERY.

During the year 1907 the following public works are to be begun, continued, or finished, by this government, for which the money has been voted: Dredging Rio Hondo bar, \$10,000; new road from Belize, \$30,000; store for explosives, \$6,000; blasting at Little Falls, \$19,900; light at Rocky Point, \$1,500; light at bulkhead, \$1,000, and Stann Creek tramway, \$194,660. This indicates considerable progress, especially in a country with a revenue in 1906 of only \$382,890, and an estimate for the present year of \$307,890.

Anyone selling this government a powerful suction dredge will be a benefactor, for there is work for such a machine at all the river bars and coast towns of low elevation, but the cost of purchase and maintenance of an A1 dredge has so far prevented such purchase.

The new road from Belize south to the Silver River, 15 miles, to the higher Crown lands, as well as through private lands, will relieve congestion in this town. There is an offer already to equip an electric tramway the length of this road free of cost to the taxpayer. The blasting of the rock obstructions at Little Falls will permit larger boats to navigate the Belize River, motor transportation having been very recently introduced and with wonderful benefit to the isolated western district of the cayo.

The granting of \$194,660 for a 20-inch gauge, 20-pound rail, and 20-mile tramway from the town of Stann Creek, westward to Crown lands, has aroused argument and influence to have specifications reconsidered and a wider gauge and heavier rail provided, but any start at all in railroad building in British Honduras should be encouraged. It is the work most needed in the colony.

As the Government proposes to carry on these works through the proper departments, exporters or manufacturers in the United States who may be interested in the business these works will create should address the colonial secretary at Belize direct, thus saving time and securing prompt and reliable information.

NICARAGUA.

TRADE WITH THE UNITED STATES—ADVICE TO EXPORTERS.

Consul E. W. Trimmer, reporting on the commerce and industries of Cape Gracias á Dios, Nicaragua, for the calendar year 1906, says:

Building operations at this port during the past year have been quite extensive. New wharves have been built and old ones rebuilt and extended, and many buildings, both for commercial and residential purposes, have been erected. To carry out the provisions of a concession lately granted by the Government, the bar at the river mouth is to be dredged to a sufficient depth to allow fruit ships to enter.

During 1906 the exports to the United States amounted to \$318,133, consisting of the following articles: Rubber worth \$44,827; hides, \$3,145; and gold, \$270,1651. The imports for the same period were valued at \$380,570, and with the exception of a few cases of wine, all were the products and manufacture of the United States. The articles of import were: Liquors, valued at \$34,251; lumber, \$9,029; merchandise, \$83,725; machinery, \$95,143; and provisions, \$148,570.

Importers constantly complain of bad packing, both as regards security and weight of package. Duties are specific and collected on gross weight; it is therefore essential that goods, especially such as pay a high rate of duty, should be packed with the lightest covering possible to convey the goods safely. Most importers when ordering give the necessary Spanish terms they wish used in invoicing the goods ordered, and these instructions should be carefully carried out, as by so doing the importer himself assumes the responsibility.

COSTA RICA.

EUROPEAN CEMENT PREFERRED.

In answer to the letter of an American firm in regard to the shipments of cement to Costa Rica, Consul Chester Donaldson, of Port Limon, tells why the German make is used, as follows:

The only reason why German and Belgian cement is preferred to the American article is the way they protect theirs, by using an iron drum instead of a barrel made of wood, for all shipments to this coast. The reason for this is evident when the climate is considered. During a great part of the year it is so moist that clothing hung up in a wardrobe will mildew in less than a week unless taken out every other day and put in the sun. Barrels of cement sometimes come broken open and often have to stand on open cars or on an uncovered dock for days. It becomes moist and hardens, thus being worthless. Our largest importers of cement claim that the only reason why they buy German instead of American cement is because the German stands the climate better, not because it is cheaper. They prefer the American article.

SOUTH AMERICA.

BRAZIL.

STATE OF SAO PAULO.

COFFEE AND FOREIGN GOODS TRADE IN THAT REGION.

Consul-General George E. Anderson, of Rio de Janeiro, reports as follows concerning the coffee production, railway system, exports and imports, and industrial possibilities of the State of Sao Paulo, together with the condition of American trade therein:

With the annual trade returns for the port of Santos and, through it, of the State of Sao Paulo, Brazil, for 1906 come the principal portion of the story of the greatest coffee crop in the world. The story, moreover, is that of the most progressive, the most productive, and in some respects the richest territory of similar size in South America. It is a story of modern production and of modern development—great, notable, and unusual—telling how about one-fortieth of the territory of the nation produces 40 per cent of its exports and consumes 20 per cent of its imports. The general exports of the State in 1906 amounted to \$102,721,534, as compared with \$68,077,775 in 1905, an increase of 50 per cent, while the imports increased 37½ per cent, from \$23,295,627 in 1905 to \$32,016,130 in 1906. The coffee crop of 1906 was unusual, and next year's returns will be likely to show a falling off, but not so great as coffee "bulls" would have the world believe. Whether such decrease does or does not occur, the State of Sao Paulo should receive the consideration of American commercial interests in more than ordinary measure.

SITUATION AND COMMERCIAL CENTER.

This State extends back a long distance from the Atlantic coast into some of the best highland country of lower Brazil, and has an area of about 150,000 square miles and a population of perhaps 700,000. The eastern and northern portions generally include the coffee belt, and this has had the general result of stimulating the railway development of the country in this direction. There is fair railway connection along the coast to the northward with Rio de Janeiro, and a syndicate is constructing a railway to the southward to connect with the Rio Grande do Sul system, which, in turn, will connect with the Uruguayan system. The capital of the State is the city of Sao Paulo, with 150,000 people, the banner city of South America for its size. It is well located on the undulating plateau, about 40 miles from the coast. Its streets are well paved, it is well lighted, its water supply is excellent, its buildings are substantial, and its homes are elegant. Its public utilities generally, including a model tramway system, the lighting system, and public power

service, are in the control of a Canadian corporation, with American capital and New York offices, which will undoubtedly have more influence in the development in Brazil along foreign lines than any other single element. The railway system of the State radiates from Sao Paulo, and the exports pass to the coast over the Santos-Sao Paulo Railway, a line which is probably the most profitable investment of the kind in the world. For many miles into the interior, between successive coffee plantations, the several branch lines reach out for coffee. At the little wayside stations are piles of coffee bags. The diminutive Brazilian railway freight cars are loaded to overflowing with the yellow bags.

HIGH GRADES FOR A RAILWAY.

The railway lowers Sao Paulo's exports and raises its imports about 3,000 feet down and up the mountain side to and from Santos on the sea. For days at a time, during the past season, the road has averaged over 100,000 bags of coffee a day, each bag weighing 132 pounds, to be lowered down a grade which renders ordinary rail-roading out of the question. The cable system is employed. On the plateau and when the coast level is reached, ordinary locomotives pull ordinary trains. On the mountain side small locomotives, with a fair amount of steam power of their own, are fitted with cable grips, and cables are operated from stations in the descent and ascent, very much as ordinary cable street railways in the United States are operated. The system is safe, rapid, clean, and reasonably economical. The business of the road is enormous. In addition to the business represented by the coffee crop alone, almost nine-tenths of the imports received at the port of Santos pass up this railway for Sao Paulo or for distribution over the State generally. The railway is owned by a British corporation. When it was established the State government gave it a subsidy, in the belief that the road would not pay. Soon, however, it began to pay and pay so well that the subsidy was withdrawn. Under the arrangement with the Government the railway was to pay certain sums to the State government when its dividends reached a certain point. When great profits commenced to come in the company began to appropriate the earnings for betterments of the most extraordinary sort. It is doubtful if there is a railway in the world so completely equipped as this Santos-Sao Paulo line. The company has constructed at Sao Paulo a station which would serve ten times its present business and which would be suitable for some of the greatest cities in the world. All its equipment is upon a similar scale. Yet its freight and passenger charges, especially freight charges, are very high, but during the movement of last year's coffee crop the road reduced its freight rates 15 per cent, the reduction to continue until June 15, 1907, when it is expected that the new coffee crop will commence to move. The last year's net receipts of the road were \$805,736, the working expenses amounting to a little less than 68 per cent, including \$150,000 of extraordinary expenditures. The road has paid 12 per cent on its stock for five and one-half years without interruption.

THE PORT OF SANTOS.

The entire railroad system of the State leads to Santos, the sea gateway of this portion of Brazil. The vast mass of coffee going to

foreign countries has led to the construction of the Santos docks, being the only docks at present in use in Brazilian seaports. Even yet, however, coffee is carried on the backs of peons from warehouses to the ships' side, while loading can be done from one side only, and there are other unsatisfactory features of the situation. Santos has a population of about 30,000, and its immense foreign business adds an unusually large proportion of foreigners to the population. It is well served with banks and foreign houses.

Under the modern system of prevention now obtaining in most Brazilian cities, yellow fever is stamped out, and residence in the port is safe and, for a tropical climate, very satisfactory.

As a shipping port Santos will this year be given much higher rank than it has enjoyed before. With so great a crop of coffee to move its record shows an increase of about 20 per cent in entrances and clearances over last year. The number of British vessels which cleared in 1906 was 269, while Germany had 129, France 129, and Italy 122. The United States flag did not appear. The increase in British shipping was about 30 per cent, in German about 12 per cent, in Italian about 22 per cent, in Brazilian nominal, and in that of other countries about 24 per cent. In tonnage the British lead is more marked, and if the matter of speed could be indicated it would be shown that the increase of British shipping in that respect is even more marked than in other lines. The increased proportion of tonnage and speed is due to the introduction of new fast mail steamers.

THE FOREIGN TRADE.

The exports of Sao Paulo in 1906 were \$102,721,534, as compared with \$68,077,775 in 1905. There was some general increase in several items of its exports, but coffee preponderates. The list of exports for the past two years, taking exchange for 1905 at 31 cents and for 1906 at 33½ cents, was as follows:

Article.	1905.	1906.	Article.	1905.	1906.
Coffee.....	\$67,659,223	\$102,118,650	Bananas.....	\$36,156	\$61,460
Hides (salted).....	84,964	142,838	Miscellaneous.....	68,974	133,671
Rubber (Mangabeira)...	105,183	111,459			
Bran.....	207,739	137,849	Total.....	68,077,775	102,721,534
Pineapples.....	15,536	15,577			

The record also shows the development of the live-stock industry by increased export of hides and decreased export of bran. All over Brazil this is steady and certain.

The imports of the district show no very satisfactory record for the United States. The portion of the trade held by Americans is very small—smaller, in proportion, than that of American trade for all Brazil. The increase in the imports of goods which the United States ought to furnish is marked. The imports at Santos for 1905 and 1906, on the basis of the exchange noted above were, by principal items, as follows:

Article.	1905.	1906.	Article.	1905.	1906.
Cotton, all forms.....	\$1,913,248	\$2,188,504	Kerosene.....	\$450,870	\$586,677
Iron and steel, and manu- factures of.....	2,428,982	3,663,361	Rice.....	637,383	800,205
Machinery:			Codfish.....	443,833	570,160
Industrial.....	370,337	308,519	Wheat flour.....	1,419,931	2,231,943
Agricultural.....	108,650	111,268	Wheat.....	2,290,211	2,740,284
Paper and paper manu- factures.....	515,317	648,802	Wine.....	2,154,004	2,285,521
Drugs and chemicals.....	466,534	656,286	Sundry foodstuffs.....	2,079,759	2,586,306
Leather.....	603,016	804,899	Specie and bullion.....	4,594,359	2,089,422
Jute yarn.....	880,474	1,567,430	Miscellaneous.....	216,518	\$ 6,086,329
Wool, all forms.....	862,947	996,714			
Coal.....	813,668	1,176,994	Total.....	23,295,627	32,016,130

* Under the head miscellaneous the figures given by the consul were \$685,329. To make the total given, the change is made to \$6,086,329.—B. M.

The effect of the great coffee crop on the imports of the country is clearly evident in this record. The increase of imports of food products represents increased labor at other than food-producing employments and, perhaps, increased prosperity for the working classes, while increased imports of coal represent the presence of largely increased ocean tonnage, of jute yarn the actual increase in coffee-bag manufacture, and of leather the development of the shoe industry. The origin of the imports and the destination of the district's exports appear in the record prepared by the semiofficial Brazilian Review, at the rate of exchange noted in exports by articles, as follows:

Country.	Imports from—		Exports to—	
	1905.	1906.	1905.	1906.
United States.....	\$2,009,209	\$2,802,007	\$26,312,462	\$30,687,510
Germany.....	3,585,631	5,379,564	16,228,460	27,706,467
Argentina.....	3,972,233	5,302,625	683,880	797,719
Austria-Hungary.....	348,236	321,769	5,250,291	7,527,700
Belgium.....	1,343,717	1,513,953	2,579,978	3,067,824
Canada.....	267,271	388,896		
France.....	1,620,942	2,445,494	3,687,233	17,714,316
Great Britain.....	5,600,191	7,446,118	1,524,444	1,844,776
Spain.....	147,727	240,115		
Holland.....	85,578	208,069	6,878,019	9,068,327
India.....	492,888	588,252		
Italy.....	2,653,807	2,084,865	1,215,414	1,800,826
Portugal.....	1,342,302	1,644,799		
Sweden.....	292,885	153,328		
Norway.....		181,756		
Switzerland.....	161,842	236,422		
All other countries.....	1,773,336	176,508	4,707,584	2,156,069
Total.....	25,757,795	32,016,130	68,077,775	102,721,524

The feature of this report is in the show it makes of immensely increased exports from the Santos-Sao Paulo district to Europe, an increase which is to be further shown in the report for the year for all Brazil. The increase to Germany is 72 per cent, to Austria-Hungary between 40 and 50 per cent, to Belgium about the same, to Holland considerably over 50 per cent, while the increase to France runs several hundred per cent. Undoubtedly the course of coffee shipments by the Government agencies under the coffee valorization scheme accounts for most of these great differences. The increase to the United States, about 17 per cent, will probably on the whole represent more real consumption and ultimate trade difference than its comparative size would indicate.

In the way of imports Germany shows an increase of about 50 per

cent, as compared with about 35 per cent for the United States; France shows an increase of about 50 per cent; Great Britain about 33 per cent; Holland and other nations in smaller volume still greater comparative increases, while Austria-Hungary shows an actual decrease, marking its decrease in flour shipments. The increase in imports for the whole State and all countries was about 25 per cent, thus allowing the record of the United States to be above the average.

AMERICAN TRADE WITH SAO PAULO.

The trade record of the United States in the Santos-Sao Paulo district is disappointing. It is doubtful if there is another district in South America where American examples, American ideas and ideals, and American capital are so well received as in this district. The people of Sao Paulo, while coming from almost every country under the sun, are more distinctly American in their ways and their enterprise than the people of any other district in Brazil, if not in all South America. Their experience with foreign capital introduced to develop their resources has been favorable to American interests. The Santos-Sao Paulo railway, heretofore described, is owned and controlled by European capital. It is giving fair service at very high rates; great dividends are earned by the corporation which owns it, and these immense earnings, secured at the expense of the overcharged producers of the State, are remitted to Europe, where they remain. On the other hand, the Canadian-American concern, which purchased the public utilities of the city of Sao Paulo, and expended immense sums of money, continues to develop great water power, and furnishes abundant power at reasonable rates, as things go in Brazil. This same group of capitalists is also developing the public utilities of Rio de Janeiro, is improving the harbor of Rio Grande do Sul, is connected with the improvement of the harbor of Para, and is developing water power for Bahia. For Sao Paulo itself it has recently purchased the rights of the Sao Paulo and Rio Grande railroad, and is preparing to carry that enterprise to completion, and give to Sao Paulo an outlet southward to the seaboard and at the same time open up what is in many respects the finest country in Brazil. All these enterprises are appreciated generally in Sao Paulo, and the disposition toward American interests is certainly very friendly. Yet the growth of American trade in this portion of Brazil is very slow, is exceeded by that of several other countries, and, as a matter of fact, would show little increase at all if it were not for the purchases made by and in behalf of this Canadian-American syndicate now investing American capital in the country. Therefore the trade of the United States is not encouraging in its actual accomplishments in Sao Paulo, especially so in view of the possible influence Sao Paulo might have in behalf of American trade in Brazil generally. Sao Paulo trade in itself is large, the imports for 1906 aggregating in value \$32,016,130, and the exports \$102,721,534.

Comparing these figures with the totals for all Brazil, Sao Paulo is shown to have the remarkable record of taking from 17 to 20 per cent of all the imports of the country and of producing from 32 to 40 per cent of all the country's exports.

EFFECT OF IMMIGRATION.

It seems safe to say that a state which furnishes 40 per cent of Brazil's exports and takes about a fifth of its imports will naturally have a great influence upon the trade course of the entire country. It is doubtful if the Amazon country can ever be greatly changed from present conditions. The climate is such that Anglo-Saxon civilization is practically impossible. The climate of Sao Paulo is favorable to intensive development. The great influx of German and Italian immigration has resulted in giving a caste to the population which no other portion of Brazil possesses. This influx from abroad continues, the immigration to Sao Paulo in 1905 being about nine-tenths of that for all Brazil, although it should be added that there is the same difficulty experienced in Sao Paulo in holding the immigrants that has been experienced in Brazil generally—a difficulty due to the lack of facilities possessed by immigrants of becoming landholders.

Under present conditions coffee is everything to Sao Paulo. The commission appointed by the State government to investigate coffee prospects in the State for the coming season estimates the present crop in Sao Paulo at about 14,000,000 bags. It will probably amount to more. This immense output, however, represents 99 per cent of the State's products and it is easy to see that the least interference with the prosperity of the coffee industry interferes with everything. There is no reason, however, why this should be the case. The abundance of power now being harnessed in the hills, the presence of iron and other minerals, point to a line of development heretofore not seriously attempted under auspices which could promise success. The agricultural possibilities of the country are extensive. Live stock thrives over nearly all of the State. Most of the land in Sao Paulo and in other Brazilian States is held by Brazilians to whom grants were made years ago, perhaps for exploration or other service, but who are unable to develop the land themselves and yet are unwilling to have anyone else develop it except by purchase at extortionate rates. European emigrants will stay in no new country where they can not acquire landholdings, and the result is that Sao Paulo, in the past three years, has lost 3,700 more emigrants than it has gained in immigrants, and this, too, in spite of the fact that the Brazilian Government and the Sao Paulo State government have had agents in Europe during these years to secure immigrants.

TRADE IN TIMEPIECES.

SALE OF AMERICAN CLOCKS AND WATCHES—TARIFF PREFERENTIAL.

Consul-General Anderson also furnishes the following report on the clock and watch trade of Brazil:

The imports of clocks and watches into Brazil from the United States increased considerably during 1906 as compared with the previous year. [The statistics of the United States show that the exports of watches and clocks to Brazil for the past three calendar years were in value, \$56,111 in 1904, \$68,804 in 1905, and \$77,485 in 1906.—B. M.] This branch of American trade in this portion of the world merits careful watching. The United States takes the lead in the trade in

clocks, and up to 1904 was second in the trade in watches. The granting of the preferential reduction of 20 per cent on all watches and clocks from the United States imported into Brazil, which went into effect about the middle of 1906, marked the beginning of a new movement in American time-keeping instruments, not so much because of the reduction itself as because of the interest it has aroused in the Brazilian market among American manufacturers. The imports of clocks and watches into Brazil in 1904 and 1905 are shown in the following statement, the figures for 1904 being on the basis of milreis conversion at 25 cents gold, and in 1905 at 31 cents:

Countries.	Clocks.		Watches.	
	1904.	1905.	1904.	1905.
United States.....	\$65,650	\$67,452	\$17,880	\$19,666
Germany.....	29,286	37,549	9,951	28,750
Switzerland.....	265	5,272	109,060	129,862
Other countries.....	14,546	8,976	9,225	9,192
Total.....	109,747	109,249	146,116	186,970

The German manufacturers are willing to supply cheap goods when demanded, and are supplying the poorer classes in Brazil with time-pieces. In the past few months American manufacturers have been preparing to meet this competition and representatives of American concerns are successfully introducing a cheap watch.

MARKET OPPORTUNITIES.

The 20 per cent preferential tariff reduction in favor of American goods offers an exceptional opportunity for the introduction of the American watch, but it is not necessary for the development of American trade. A very large portion of the increase in American watch shipments during the past year was bought before the preferential tariff came into effect. A salesman representing an American concern, which sells both American and Swiss watches, having factories in both countries, has informed me that his concern have disregarded the 20 per cent preferential in their trade, giving just that much more to the trade, but from the standpoint of profit and from other considerations preferring to sell American watches; and being able to sell them on their merits in competition with their Switzerland factory. Independent of the preferential reduction in the Brazilian tariff on American watches the latter are easily sold here in free competition when American manufacturers give attention to the trade. The American watches have many advantages. In the matter of cases, for instance, the American watches are vastly superior to others, and the statement was made to me by a representative in Rio de Janeiro of both American and European concerns that a good gold-filled watch case found here is always an American case even though it came by way of Europe. American watch manufacturers, catering to the Brazilian market, have had trouble in the past in suiting watch works to proper cases, but this trouble seems to be fairly disposed of in the present trade.

It is possible that some advantage could be secured by special attention to the needs of the watch trade in tropical seacoast countries just as special attention is paid by some typewriter companies to the need of specially constructed typewriters for use at sea and in damp cli-

mates. The climate of Brazil, especially coast and tropical Brazil, is very hard on watches and clocks as generally constructed. Repairs are costly and the necessity for them is frequent and serious. The invention of some protective device and the selection of special materials to avoid the results of dampness might give American manufacturers an advantage of value to them. With reasonable energy and care American manufacturers ought to have no difficulty in maintaining their great lead in clocks and in securing a more satisfactory share of the trade in watches.

FOREIGN AGENCIES.

SALE OF AMERICAN TYPEWRITERS THROUGH LONDON HOUSES.

Mr. Anderson furnishes the following report on the method of introducing and selling American typewriters and other goods in Brazil:

A characteristic result of American manufacturers dealing in foreign fields through an European office has developed in the sale of American typewriters in Brazil. The American and Canadian business of a typewriting machine manufactory in the United States is managed by the American company, while the business of the rest of the world is under the control of a British concern, with headquarters in London. The machines are manufactured in the United States and orders to the London office are generally filled from a stock of machines on hand. While the machines are of American manufacture the efforts of the British company seem to be directed more or less toward giving the impression that it is a strictly British concern in all respects, the fact that its head office is in London being especially emphasized in its literature and advertising matter.

Under the preferential tariff allowed by Brazil upon certain goods of American origin, typewriters are allowed a 20 per cent reduction. Up to date, Brazilian customs authorities have refused to allow this preferential upon machines coming by way of Great Britain. The matter is being carried up to the highest customs officials and it is possible that the present ruling will be changed so as to admit such machines upon proof that they have been manufactured in the United States. But in any event this British end of the American concern will be under the constant necessity of proving its goods of American origin if it is to have the benefit of the 20 per cent reduction. The matter of duty merely interferes with the profit of the selling agents in Rio de Janeiro, although they will meet the price of competing typewriters. But the situation illustrates the unsatisfactory method of dealing in foreign countries through a foreign agency which involves an ironclad business division of world territory.

AMERICAN GOODS SOLD ON MERIT BASIS.

No doubt many American cotton sales have been lost by the policy of selling American cottons through London agencies. With the American manufacturer it has been a matter of selling through London agents to secure just that much more business. A permanent and satisfactory export business can not be built up in that manner, as British agents can not be expected to push the sale of American goods so long as they can secure British goods to meet the demand. What American goods are sold by British concerns as a rule are merely deals to fill out a general line of British goods, and in such

sales the American manufacturers are working more to hold the market for British goods than to obtain it for American goods. The fact that any American goods are sold under such circumstances is ample proof that they can be sold the world over on their merits. Typewriters, cotton goods, machinery, and all other American goods should be sold as such, coming direct from the United States. Early results may not be so satisfactory, but they will be more permanent.

Agents here prefer to handle the typewriters as American make, selling them as such, and emphasizing their origin, but prefer to deal through the London concern and to have their machines come from England, because they are shipped more expeditiously. With a weekly fast steamer service from England the agents are in a position to secure far better service than with a monthly service of comparatively slow steamers from New York. This is one example among many where American trade is directly injured by a lack of proper steamship connections between the United States and the markets it is attempting to reach. But for the marked superiority of its typewriting machines the United States would not be able to enter this field in that line.

FIRE INSURANCE.

HOME COMPANIES CARRY A MAJORITY OF THE POLICIES.

Consul-General Anderson also furnishes a report on fire insurance in Brazil, which follows:

There is said to be some unrest among insurance circles in Brazil as a result of the terrible disasters at San Francisco, Valparaiso, and Kingston. The fire and similar risks in Brazil are so greatly centered as a result of the policy of keeping out foreign fire and marine companies as far as possible that any similar disaster in a Brazilian city would be likely to have grave financial results aside from the actual loss it would entail. Brazil's population and wealth are not great and it is not in a position to carry any great burden in an emergency. Its principal cities, with one exception, are along the seacoast, where it may reasonably be apprehended that a disaster to one city would affect others in a similar manner. Substantially seven-eighths of the insurance risks, fire and marine, in Brazil are carried by Brazilian companies. There are 36 insurance companies organized with Brazilian capital under the laws of Brazil, and 13 foreign companies, 7 of the latter being British, 1 French, and 5 German.

The total insurance placed in Brazil amounts to \$82,158,688, the premiums received, \$4,307,866, and the amount of losses paid, \$2,203,216. Of the total insurance in force 82.7 per cent of the risks are in Brazilian companies and 17.3 per cent in foreign companies. Of the premiums paid Brazilian companies receive 85.5 per cent, compared with 14.5 per cent for foreign companies; and of the losses 85.6 per cent were paid by Brazilian companies and 14.4 per cent by foreign companies.

JAPANESE IN BRAZIL.

STEAMER LINE PROPOSED FOR EMIGRANTS AND MERCHANDISE.

Mr. Anderson further reports that according to general understanding the commencement of a large emigration of Japanese to Brazil,

which has been the subject of negotiation for sometime, is not long to be delayed. Mr. Anderson continues:

Announcement is now made in a semiofficial way that Secretary Niura, chargé of Japan in Brazil, has had a conference with the minister of industry and transportation after a conference with the foreign relations department of the Brazilian Government, as a result of which it is said that the line of Japanese steamships for Brazil will be inaugurated in the near future, making their voyage by way of Cape Colony to the advantage of both Brazil and Japan. The line of steamships is the precursor of the emigration expected from Japan to Brazil. The introduction of Japanese emigrants will lead to some important Brazilian economic and commercial changes. One result will doubtless be the raising of rice on large areas of waste land. There is no reason why Brazil should not be one of the greatest rice-producing countries of the world.

The development of direct trade relations between Japan and Brazil will doubtless result in an increased use of coffee in the Far East—an increase already to be noted—and an increased sale in Brazil of Japanese cheap novelties, especially in furniture, toys, and small goods. An examination of the stock of stores selling so-called Japanese and Chinese goods discloses the fact that either Japan and China are exporting classes of goods much cheaper and more flimsy than their ordinary grades of export goods—or else European competitors are appealing to a Brazilian demand for novelties by placing exceedingly cheap imitations of Japanese goods on the market here, especially in the line of dolls, masques, alleged lacquer boxes, and the like.

FOREIGN TRADE.

COMPARISON OF IMPORTS AND EXPORTS FOR PAST TWO YEARS.

From the Servico de Estatistica Commercial, at Rio de Janeiro, the following statements showing the imports and exports of Brazil for the years 1905 and 1906, have been compiled:

Articles.	1905.	1906.	Articles.	1905.	1906.
IMPORTS.			EXPORTS—continued.		
Animals, live.....	\$1,527,300	\$688,800	Hides, wet and dry...	\$6,756,700	\$9,508,100
Raw materials and unfinished manufactures.....	24,485,400	31,108,200	Yerba matia.....	6,018,000	9,508,100
Manufactures.....	68,120,400	79,910,100	Cotton.....	5,638,000	8,072,400
Foodstuffs and forage.....	50,031,800	49,885,100	Cocoa.....	5,058,700	6,717,000
Total.....	145,164,900	161,587,200	Tobacco.....	4,015,700	4,635,100
EXPORTS.			Sugar.....	1,975,300	2,950,100
Coffee.....	104,242,900	134,892,800	Skins.....	2,254,200	2,639,900
Rubber.....	70,897,300	68,999,100	All other articles....	10,851,300	11,691,500
			Total.....	217,203,100	258,214,100

ARGENTINA.

FOREIGN COMMERCE.

IMPORTS INCREASED AND EXPORTS DECREASED LAST YEAR.

Consul-General Alban G. Snyder, of Buenos Aires, reports that complete statistics of the foreign commerce of Argentina have just been published, from which he submits the following summary of the imports and exports for 1906, all in gold, with comparisons:

Imports were valued at \$269,970,521, which is an increase over 1905 of \$64,816,101, while the market value of the products exported was \$292,253,829, which is less by \$20,590,012 than in 1905. From these figures it can be seen that while there is still a balance of trade in favor of the country of \$22,283,308 it has greatly diminished since 1905, when it was \$107,689,421. The importation of gold amounted to \$18,218,323, or \$14,347,217 less than in 1905.

As stated in a previous report for the first nine months the imports have increased all along the line, while the exports have decreased. The falling off in the principal products of exportation was as follows, the amounts representing the decrease over 1905: Sheep, \$3,484,383; wool, \$5,910,156; dried meat, \$3,141,801; cattle (all products), \$16,906,547; flax, \$317,990; wheat, \$19,321,960; flour, \$595,735; agricultural products, \$12,580,543.

IMPORTATION AND USE OF PAPER BAGS.

The imports of paper bags are put under several heads, but the official report for the first nine months of 1906 shows that paper bags subject to duty were imported to the amount of 25,579 kilos, value \$8,952 gold, and paper bags free of duty, 98 kilos, value \$34 gold. Most of these came from Germany or Europe at large. Bags are used very largely in this country, and there are a number of local factories engaged in their production. [Addresses on file at Bureau of Manufactures.] One of them is an up-to-date plant with modern machinery, but it is said that it, as well as the others, get all their pulp from Europe and principally from Sweden and Norway. The import duties on paper bags, with or without printing, are 25 per cent ad valorem, based upon a value fixed in the tariff of 35 centavos per kilogram (2½ pounds). As to a license for commercial travelers or representatives operating through local houses, any person or firm doing business in this country must have a license, which costs from 100 to 2,000 pesos paper money (paper peso=42.5 cents American), according to the nature and importance of the business. If business is done in the name of a house already established, no license is required.

ALCOHOL AND WINE INDUSTRY.

According to figures published in a Buenos Aires paper there are 335 distilleries in the province of Mendoza, which had an output in 1906 of 1,548,769 liters (liter 0.908 quart) of alcohol.

The output of wine in this province during last year was 895,000 hogshead of 200 liters each, which, added to the stock of 125,000 hogsheads from 1905, makes a total of 1,020,000, of which 840,000 were sold, and on January 1 of this year the stock was 180,000. There were 692 bodegas (storehouses) working.

PUBLIC IMPROVEMENTS.

NEW PURCHASING SYSTEM AND PUBLIC WORKS PLANNED.

The Boletín Oficial of Argentina contains a copy of a law establishing a permanent commission to be charged with the purchase of all materials and articles of ordinary consumption needed by the various branches of the ministry of public works. The under secretary for public works is to be president of the commission, the other members

being the directors-general of architecture and irrigation, the inspector-general of roads and bridges and hydraulic works, and the assistant accountant-general.

The Review of the River Plate announces that the plans and estimates for the construction of a canal between Buenos Aires and La Plata have been received by the minister of public works. The estimated cost of the work is \$26,471,000 gold. The cost of maintenance is estimated at \$1,688,260 gold a year, and the revenue at \$1,800,000, so that there would be a probable balance of \$111,740. The minister is of the opinion that the work should be given to a foreign firm or company, as the revenue of the country is not sufficient to enable the work to be done out of the revenue.

The Review also states that surveys are to be made for drainage works in the following cities: Tucuman, Corrientes, Avallaneda, Bahia Blanca, Mar del Plata; and for waterworks in Mercedes (San Luis), Rio Cuarto, Villa Maria, Villa Nueva, Belle Ville, Esperanza, Concordia, Colon, Uruguay, Victoria, Nogoya, La Paz, Diamante, Goya, Monteros, Villa Casilda, Curuzu Cuatia, Villaguay, Villa Mercedes (Corrientes), Pergamino, Azul, Dolores, Gral. Lavalle, San Nicolas, Mercedes, Chivilcoy, Junin, Lomas, Tandil, and Andalgalá. The cost of these surveys is estimated at \$500,000. The surveys and estimates as prepared are to be submitted to Congress.

PARAGUAY.

TRADING WITH UNITED STATES.

COMPLAINT OF BUSINESS MEN AGAINST AMERICAN METHODS.

Consul John N. Ruffin, reporting from Asuncion, states that the president of the Agricultural Bank there, who was formerly President of Paraguay, invited him to his office recently to confer with regard to the American methods of doing business, concerning which the consul writes:

In that conference he showed me some letters from American merchants, one especially from a firm with whom the bank had been doing business for ten years, and to whom an order had recently been sent for fifty sugar-cane mills. Although the bank had been dealing with them so long and had always paid their bills regularly, this firm requested that the entire sum be sent with the order. It was stated that a great number of people dealt with the United States simply because they had to.

The efforts of American public men to build up trade were also referred to, but that no facilities for doing the same were extended by American merchants in the way of credits; that much advertising and propaganda are done to get commerce instead of first ascertaining who the parties are that are responsible and with whom business can safely be done, then solicit their trade and offer conditions mutually satisfactory.

This latter idea I think the proper one, and to this end I am commencing a complete commercial survey of Paraguay, giving the names of the chief importing merchants in the principal towns, the number

of years they have been in business, prices paid for goods in the European markets, and present and prospective needs of the several sections wherein American machinery and goods may be needed for the elaboration of native products, etc.

CHILE.

OPPORTUNITIES PRESENTED.

AMERICAN BANKING HOUSE NEEDED—OUTLOOK FOR TRADE.

Consul A. A. Winslow, of Valparaiso, reports on the need of an American banking house, the disseminating of printed matter, and the trade outlook of Chile as follows:

A good American banking house at Valparaiso would be a great step toward securing the trade of this country, which is growing with leaps and bounds, having increased 300 per cent in the last ten years. England, Germany, France, and Italy understood the importance of this, and have substantial banking institutions here prepared to protect the trade interests of their countries. England and Germany each have two strong banking houses, through which nearly all their foreign business is done, and which are in a position to lend much assistance to the trade interests of their respective countries. There is a good opening here for capital, and in no way can this be handled more satisfactorily than through banking-house connections.

The trade outlook for Chile seems exceedingly bright. It has been forging to the front for the past two years, but the United States does not yet have the portion of the increase it should, as its trade for 1905 was only about 9 per cent of the imports. However, 1906 shows an increase. According to the report of the director of customs for 1906 the customs receipts exceeded those for 1905 by \$3,655,696 United States gold, of this increase nearly one-third being accredited to the month of December. The total customs receipts for 1906 were \$31,052,267 United States gold.

The marked increase of wages that has taken place during the past two years, and especially since the earthquake, will very materially increase the demand for foreign goods and labor-saving machinery. With the salaries more than doubled the laboring people can live and dress better, which means prosperous times for the next few years.

ADVICE TO AMERICAN EXPORTERS.

The American exporter should go after this business, and here are a few hints to assist in getting and holding it: First, the field should be worked by a first-class salesman who understands the Spanish language. He should be trustworthy and competent. An unreliable and incompetent salesman is worse than none at all. Great care should be taken in filling the orders as directed and in preparing the goods to the taste of the buyer. Great care should be taken that everything is most carefully packed. A barter chair was unpacked here the other day that showed gross neglect on the part of the shipper.

When the American exporter will use the same care in packing his

wares for the foreign trade as do the Europeans, he can expect more business. It seems strange that an American manufacturer or exporter will work up trade and ship a superior article in a box not suitable to send the same article a short distance at home. The consequence is that very often when the goods arrive they are practically worthless, which means nine times out of ten the loss of that line of trade. Then for Chile it is wise to clear all small shipments through a reliable American house, of which there are two in Valparaiso [names on file at the Bureau of Manufactures].

DISTRIBUTION OF PRINTED MATTER.

The distribution of trade journals, catalogues, and advertising matter in English will do much good, as English is very generally spoken in all the business houses, and the merits of American goods are not so well known as in most parts of the world. Nearly everything is European that can be had here, and generally speaking only such things have been brought from the United States as could not be had elsewhere. The tide seems turning and now is a time to educate the trade. Within the past month there have been three instances where good results came from the distribution of printed matter sent to this consulate, and this doubtless was a small per cent of the real good done.

A better feeling exists here now and it should be cultivated. The Chilean newspapers have much more to say about the United States, and the public seems more anxious to get information about the conditions in the country so little known here. Of course printed matter in Spanish would be better, as that is the language of the country, and the people prefer it and take more kindly to people who come to them with their language, but of course there are but few Spanish publications at home, and English is better than none. Special attention should be given to postage and every package should be fully prepaid. This is very important. [Consul Winslow transmits a list of business houses embracing all lines of mercantile and professional activities which he thinks it would be well to favor with printed matter. He believes also that it would pay well to supply hotel reading rooms with trade journals. Lists of Valparaiso business houses in any line may be secured from the Bureau of Manufactures.]

ECUADOR.

BUSINESS AFFAIRS.

GUAYAQUIL A GOOD FIELD FOR A MODERN STEAM LAUNDRY.

Consul-General Herman R. Dietrich, of Guayaquil, reports on the following topics of interest concerning Ecuador:

Guayaquil, with an estimated population of 70,000, is without an up-to-date modern steam laundry; the city has only one small steam plant in operation and it lacks the management of a practical laundryman. It seems only natural that an experienced laundryman, with a well-equipped modern plant, well managed, should be successful with such a large populace to solicit from. Chinese are

at present doing the bulk of the work, although a great many of the poor native women also assist along this line. Their tariff is about the same as that in the United States.

For the information of physicians in the United States who desire to know on what terms they can be admitted to practice in Ecuador, the following is furnished: It is necessary to take an examination in Spanish before a board of examiners in the usual medical and surgical subjects; the fee for this examination and for recording title, etc., is about \$60 United States gold; being the same fee that a medical student in the national colleges pays for his last examination, license, recording fee, etc. The same license also permits his practising in Colombia, Peru, and Chile without further examination.

The national assembly before adjourning passed an act, which has been approved by the President and was ordered to go into effect March 15, 1907, placing an additional export tax on ivory nuts, thus fixing the export tax on unshelled nuts at 2 cents, and shelled 3 cents per pound. It also empowers the President to reduce the tax if it is found to be exorbitant and disastrous to the ivory-nut industry.

DUTCH GUIANA.

PRODUCTIONS OF THE SOIL.

Consular Agent W. H. Bradley, of Paramaribo, makes the following report on the soil productions of Surinam, or Dutch Guiana, for the past two years:

	1905.	1906.		1905.	1906.
Sugar kilograms..	10,790,090	12,685,400	Balata..... tons (long)...	244	267
Rum liters..	793,165	784,217	Gold..... kilograms..	1,071	1,187
Cacao kilograms..	1,681,827	1,480,568			

Kilogram, 2½ pounds; liter, 1.0567 quarts; long ton, 2,240 pounds.

TRANSPORTATION.

MODERN RAILWAY SYSTEMS.

MEXICO.

GOVERNMENT CONTROL OF LINES—MERGER AND REORGANIZATION.

Consul-General A. L. M. Gottschalk, of Mexico City, writes that the Mexican Government is now practically in a position where it controls the transportation situation of the country from a political and strategic as well as economical point of view. The Government has succeeded in merging into one corporation the Mexican Central Railway and the National Lines, which embrace a number of roads, having a combined mileage of 10,000 miles. The consul-general writes:

It is contemplated to form a Mexican company, of which the majority of the stock will remain in the hands of the Mexican Government. It will be controlled by a board of 21 directors, which will have a general board of 12 members residing in Mexico and a local board of 9 members which will make its headquarters in New York. It is expected that by the reduction of the general charges and expenses, and the doing away with all harmful competition, the new company may provide the country with an economical schedule of freight rates. The company, I am told, will make a limited issue of prior lien bonds at $4\frac{1}{2}$ per cent and general mortgage bonds at 4 per cent, the principal and interest of the latter being guaranteed by the Mexican Government. In addition to the bond issues the company will issue first and second preferred and common stock. It is proposed to leave an ample reserve in cash and securities for future improvement, development, and extension of the lines of the company and for the acquisition of additional rolling stock and motive power.

DENMARK.

OPERATION OF COPENHAGEN'S STREET LINES.

Minister T. J. O'Brien furnishes a report on the street railways of Copenhagen, Denmark, of which a summary follows:

Prior to eight years ago there were several street railway lines owned by separate and independent companies. In 1898 a corporation was organized which combined the entire system, with slight exceptions. The capital stock of the corporation is \$2,680,000, and bonds to the amount of \$1,408,000, drawing $4\frac{1}{2}$ per cent, were issued and sold. There is also a floating debt of about \$884,400. As a condition to granting a franchise, the city government of Copenhagen exacts from the company the performance of the following duties:

First, that the fares to be collected should not exceed 10 ore (about $2\frac{1}{2}$ cents), which also should include universal transfers. Second, that the company should

pay to the city treasury 6 per cent of its gross receipts. Third, that it should pave and maintain between its tracks and about 2 feet outside the rails. Fourth, the city reserved the privilege of providing the electric power at an agreed price, out of which the city is making a net profit of about 700,000 kroner (\$187,600) per year. Fifth, that the charter should expire in forty years from its date, at which time the entire property should be delivered to the city free of cost and free of incumbrance.

The last-named obligation, it will be seen, will compel the company to create a sinking fund during the life of the charter to pay its indebtedness at the expiration, together with at least the par of the capital stock. During the past five years the work of relaying the tracks and changing into the electric service has been going forward, and is now nearly completed. All new lines are constructed in the most modern and approved fashion, and the operations are conducted in the most careful and successful manner.

Injury to patrons or to employees is a thing scarcely heard of, and the outlay on account of damages or injuries has not exceeded \$1,000 a year.

EMPLOYEES' WAGES AND PENSIONS.

The lowest wages for motormen and conductors is about 4 kroner (\$1.08) per day, a day being ten hours for the conductor and nine and a half for the motorman. After a period of service the pay is slightly increased, the amount for the year ranging from 1,100 to 1,500 kroner (\$295 to \$402). For the ordinary workman the pay is from 1,100 (\$295) to 1,400 (\$375) kroner per year.

In addition to this compensation the company provides the clothing for the motormen and conductors. They are allowed one day of rest in six without deduction of pay, and in addition six holidays during the year. Employees of the company remaining in the service twenty-five years are entitled to a pension in case at the end of that time they are unfit for further work. The pension amounts to two-thirds of the yearly wage of the person. In case of illness contracted outside of and not due to the service full wages are continued for six weeks, and half wages for the six weeks following, after which no duty rests upon the company; but the period of such illness is reckoned as a part of the service for the purpose of the pension. If the illness was contracted in the service the employee receives full wages until recovery. In case of personal injury caused by an accident arising out of and in the course of the employment, and incapacity for work results, the company continues full wages until the final consequence of the accident shall have been ascertained or until the employee recovers. In case the incapacity resulting from the accident proves to be permanent the employee will receive a pension for life equal to about two-thirds of his average wage for the preceding five years.

There is also a provision for a widow's pension, amounting to about one-eighth of the average wage of the husband for the preceding five years. In case an employee is injured and death results the law provides that the widow, if there shall be a widow, shall receive 3,200 kroner (\$858) at once and in lieu of a pension. The employees of the company number at present 1,420.

FINANCIAL RESULTS.

The car-miles in 1898 were 3,797,413, and the income \$719,831, while in 1906 the car-miles aggregated 9,771,827, and the income \$1,562,492.

Notwithstanding the constantly increasing speed of the cars, the power used per ton per mile has remained substantially unchanged.

all practical purposes. The tracks reach out in every direction and converge into the heart of the business district. While no transfers are allowed, the fares are uniformly two cents, with the exception of one circular excursion route along the sea front, upon which three cents are collected. Very general use is made of the service, and owing to the low fares, cars are taken for distances so short that otherwise they would be covered on foot. Electricity replaced horse cars and omnibuses in 1900, but the new system was not completed until 1902. I supply below a table of statistics showing the exact situation since 1900, when the 2-cent service was partially inaugurated.

Year.	Length of lines in exploitation.	Number of employees.	Mileage traveled.	Number of passengers.	Gross receipts.
	<i>Miles.</i>				
1900.....	44.98	2,196	5,845,152	42,243,060	\$876,065
1901.....	50.39	2,125	6,730,243	48,581,585	1,019,539
1902.....	62.91	2,047	7,875,289	61,180,191	1,240,996
1903.....	64.70	1,768	8,387,623	64,605,692	1,317,869
1904.....	65.56	2,170	9,309,421	70,782,479	1,430,969
1905.....	73.00	2,400	10,664,306	77,176,908	1,550,183
1906.....	76.56	2,400	12,016,661	88,943,150	1,781,994

GREAT BRITAIN.

IMPROVED SYSTEM OF ELECTRIC TRAIN LIGHTING.

Consul Frank W. Mahin, of Nottingham, advises that some features new to Great Britain have been devised by the electrical department of the Midland Railway Company for the lighting of trains.

As briefly described, the device involves the use of three small machines, with their armatures all mounted on one shaft, which is independent of the armature of the main machine. One battery only is necessary, and this is required for supplying current when the train is standing or running at a speed below that at which the dynamo comes into action; but the regulation of the lights takes place quite independently of the battery, which can be disconnected from the dynamo at any speed without interfering with the pressure on the lamps. In other words, the regulation is purely electrical, compensation for speed variation or difference in load being made by the small regulating machines. It is claimed that in this system the battery is subject to much less severe usage and that its capacity is much smaller than in certain other systems, while the energy consumed by it is very low, the wastage being reduced to a minimum. Regulation is said to be as good, moreover, at 90 miles an hour as 20, since the apparatus contains neither mechanical governors nor slipping belts.

The first set of machines, of a tentative kind, is said to be running satisfactorily and the manufacturers expect shortly to complete some new machines, which will be standard, and in the design of which the results of the Midland Company's experience with the experimental set have been embodied.

The question of electric light for trains has assumed unusual interest and importance in Great Britain, in view of the statement in a report to the Board of Trade upon the Grantham disaster that "the accident points, as previous accidents have already done, to the unsuitability of gas as an illuminant for railway vehicles."

AUSTRIA-HUNGARY.

ELECTRIC LINES OF BOHEMIA.

Consul U. J. Ledoux, of Prague, reports that the official returns just published show the following results regarding the traffic and receipts of the electric street railways of Bohemia for the year 1906:

Cities.	Number of passengers.		Receipts.	
	1906.	1905.	1906.	1905.
Prague.....	27,895,289	24,062,163	\$724,364	\$630,084
Prague-Lieben.....	1,742,543	1,651,624	53,207	48,904
Aussig.....	2,411,539	1,119,225	46,905	43,280
Gablonz.....	1,741,580	2,215,253	83,650	77,703
Marienbad.....	1,351,673	1,597,978	14,715	13,145
Pilsen.....	1,085,942	312,106	28,767	27,304
Reichenberg.....	2,615,968	1,804,148	67,894	44,905
Teplitz-Eichwald.....	1,696,081	1,525,253	47,253	44,070

Of particular interest is the increase of traffic in Prague, where the number of passengers carried during the year 1906 shows an increase of nearly 4,000,000 persons as compared with 1905.

OCEAN SHIPPING.

SCOTLAND.

GLASGOW'S SUCCESS DUE TO ITS MERCANTILE FLEET.

Consul R. W. Austin, writing from Glasgow in regard to the merchant marine of Scotland, says:

The wonderful trade enjoyed by Glasgow in distant lands owes its success to the thousands of steam and sailing vessels which enter every port in the world laden with Scotch and English made goods. Glasgow's direct steamship lines give its exporters and manufacturers the cheapest and most direct transportation between the local factories and all foreign markets. This is an advantage which the United States manufacturers do not enjoy, and they will never be on an equal footing with their foreign competitors until a merchant marine of its own is secured. The foreign manufacturer does not fear competition from his American rival so long as he has the advantage of thousands of passenger and cargo steamers on his side, and his commercial competitors are without the means of meeting him in the distant ports and markets of the world.

For the twelve months ending June 30, 1906, 1,913 vessels (1,849 steam and 64 sailing), of 3,326,328 tons, sailed out of Glasgow, the following being the principal destinations, with tonnage: Africa, 350,941; British North America, 361,593; United States, 493,263; South America, 404,392; Australia and New Zealand, 148,301; China and Japan, 199,221; France, 208,845; India, 472,888; Italy, 202,822, and Spain, 157,015.

The nationality of the vessels entering the harbor during the year named, and engaged in both foreign and coastwise trade, was as follows:

Countries.	Sailing.	Steam.	Total tonnage.
Great Britain.....	482	15, 199	5, 274, 967
Austria.....		15	21, 604
Belgium.....		11	26, 893
Bulgaria.....		1	1, 164
Denmark.....	3	3	3, 640
France.....	16	10	38, 534
Germany.....	1	16	10, 143
Italy.....		16	25, 525
Norway.....	6	141	94, 384
Spain.....		33	31, 273
Sweden.....	1	47	32, 600
Total.....	509	15, 492	5, 560, 727

EXTENSIVE SHIPPING INTERESTS.

Not a vessel entered the harbor during the year 1906 flying the flag of the United States. The records for six years past disclose the astonishing fact that while 1,130 loaded ships sailed from Glasgow to the United States, every one of them carried a foreign flag. The local market value of the goods carried on these vessels to the United States in the six years amounted to \$37,016,949. This does not include an average annual passenger list of 25,000 persons. As the value of the importations from the United States into Glasgow exceeds the exports, the foreign vessels leaving this port carried freight valued at over \$37,000,000 and returned with cargoes the estimated cost of which in America was no less than \$50,000,000. Glasgow has 110 separate firms and corporations owning steam and sailing ships engaged in the foreign and coastwise trade. In some instances a single company owns as many as 30 vessels, the tonnage of many of these being over 8,000 tons. The number of local shipping offices and agents engaged in extending the foreign commerce is 569.

The Clyde Navigation Trust collects all harbor dues from ships entering and leaving the port. The annual revenue in 1863 was \$590,415, while the revenue for 1906 was \$2,642,845. The quantity of goods in and out of Glasgow in 1863 was 1,437,235 tons; in 1906 the record was 9,256,218 tons. This tonnage is foreign and coastwise trade.

The practical benefits of a merchant marine, and how it has aided in the development of a new industry in Glasgow during the past fifteen years, until it has outstripped its older rivals in the United States, is shown in the case of a well-known sewing-machine company. Its capital is English and its active management is in the hands of able and experienced Americans. This plant was built in the suburbs of Glasgow fifteen years ago. To-day it gives employment to 11,000 people, and during the past year it manufactured 1,000,000 sewing machines. These machines were sold in Central and South America, on the Continent of Europe, and all over the Far East. They reached these desirable markets through the medium of Glasgow's merchant vessels. This was an advantage its rivals in the United States did not enjoy, and hence during these years have missed the sale of millions of machines. With equal shipping facilities—direct lines and cheap transportation—and having all the raw material in America, the Glasgow plant could not undersell the sewing-machine companies of the United States in the foreign markets of the world.

A merchant marine is not only imperatively needed now, but with-

out it the Panama Canal will be of far greater service to foreign manufacturers, exporters, and the great shipping world of the old country than it will be to the great Republic which will build and own it.

ASIA MINOR.

COMPETITION TO OBTAIN THE TRADE OF THE LEVANT.

Consul E. L. Harris writes that Smyrna is the most important emporium of Asia Minor, the commerce of the harbor during the past twenty years having wonderfully increased, which he says is due to the following causes:

European capital, coupled with engineering skill, has pushed back the waters of the sea a distance of 100 yards on a shore line 2 miles in length, built docks and quays, and made Smyrna one of the finest cities in the Orient. The harbor facilities are sufficient to secure the entrance of the largest ocean vessels.

Some years ago it was the opinion of experts that it was but a question of time when the harbor would be filled in, and would shortly be the same as that which overtook many ancient cities on the southern coast. The ruins of Ephesus and Miletus now lie a distance of some 10 miles from the sea, and it was feared that the same influences would eventually reduce Smyrna and her harbor to a place of insignificance. Such a thing is now out of the question, and in thirty years Smyrna has risen from a town which was only the terminus of great overland caravan routes on the one hand and a port for sailing vessels on the other to be the second city of importance in the Turkish Empire. Of the steamship lines with regular sailings to and from Smyrna, 2 are French, 2 English, 2 Italian, 1 Roumanian, 2 Greek, 1 Bulgarian, 4 Ottoman, 1 Russian, 2 German, 1 Austrian, and 1 Belgian. Only two small ships carrying the American flag entered the port last year, the Washington 334 tons, and the Thea Pronia, 17 tons, both sailing vessels.

Considerable importance must be attached to the trade of the Levant. The commerce of the Occident and the Orient meet here. The city is the gateway to a great and unexploited country which presents excellent opportunities. The city, with a splendid harbor, spacious docks, quay, and mole, is destined to become the chief strategic vantage point on the commercial highway between the East and the West. It is easily approached from the sea, is within eighteen hours of Constantinople, or the Piræus, and the many nations in promoting their shipping interests in this part of the Levant know that the time is not far distant when Asia Minor will be demanding two to four fold more manufactured articles.

LOW FREIGHT RATES FROM GERMANY.

The cheap freight rates in shipping in this part of the world are caused by keen competition, no one company at present exercising a monopoly. Not very long ago a rate war gave such low freight rates from Germany to this city that Austrian exporters of Prague, Bodenbach, and Aussig were able to send merchandise, household goods, furniture, etc., cheaper by way of Hamburg than by Trieste.

This forced the Austrian Lloyd into cutting rates in order to bid for the trade which began to slip from their grasp. While there is

now no rate war, yet freight rates from Germany to Smyrna are very low. Of all countries Germany is making the most progress at this port in shipping. In conjunction with the railways of the Empire, very low rates are quoted from the interior of Germany to the Levant. Recently 22 large cases, one including an upright piano, were shipped from Chemnitz to Smyrna at a cost of \$50. The combined weight of the cases was 2 tons and 12 hundredweight, and occupied 337 cubic feet of space.

A frequent source of complaint by would-be importers of American merchandise is that they are unable to even approximate the cost of importing goods from an inland town in the United States to this and other markets, at least without writing to the manufacturer, which means a delay of at least a month. This is where German exporters have the advantage. The German State railways, acting in conjunction with the German steamship lines, quote through rates from any interior town to the chief ports of the Levant, and publish a handbook of over 130 pages, giving the rates as well as a résumé of the principal rules regarding the carriage of goods on the State railroads. Foreign merchants can then tell from catalogues and samples whether it will be practicable to import goods. These facts are mentioned in order to show that although German manufacturers are the farthest away, yet they enjoy as cheap, if not cheaper, freight rates to the Orient than do their competitors of most European nations.

A HOME COMPANY IS EXTENDING TRANSPORTATION OPERATIONS.

Consul Harris also reports that an Imperial Turkish irade has been accorded to the Hedjaz Railway Company, granting the sole right of coasting in the Gulf of Smyrna. He continues:

This is the same company which is building an independent Turkish railway to Mecca. For some years past another Turkish company has been running a line of passenger steamers across the bay to the town of Cordelio, which lies opposite the town of Smyrna. The concession of this company soon expires and the property all reverts to the Imperial Ottoman Government. The Hedjaz Railway Company intends to enlarge the business by running a line of small steamers as far north as ancient Phocia and to many of the small towns lying to the west and south of Smyrna.

The acquirement of this concession on the part of the Hedjaz company may not mean very much in itself, only so far as it is indicative of the times and the spirit now manifested throughout Turkey generally. For years to come Turkey is an opening field for great enterprises for foreign capital, which is needed in large quantities to exploit mines, to establish electric street railways, and lighting plants. For such enterprises as these Turkey must look abroad if the country is ever to become developed.

BRITISH INDIA.

INDIRECT VOYAGES FROM AMERICA ARE DISADVANTAGEOUS.

Consul-General William H. Michael makes the following report from Calcutta on shipping at that leading port of British India:

During the last nine months of 1906 there were 1,241 arrivals of merchant vessels at the port of Calcutta and 1,221 departures. Of

these there were 1,117 British ships, 64 German, 10 Austrian, 9 French, 8 Italian, 9 Norwegian, 16 Dutch, 2 Swedish, 1 Turkish, 1 Danish, 2 Russian, and no American vessels, except 2 yachts, and 2 oil steamers of the Standard Oil Company, flying the American flag. One of the yachts was simply chartered by an American gentleman from the British owner for cruising purposes. Great Britain controls over nine-tenths of the vessels entering this port. The same is true of Bombay, Madras, Chittagong, and Karachi, which means all the ports of India.

Fifty-six vessels sailed from Calcutta destined for the United States during the calendar year 1906. They sailed for Boston, New York, and Philadelphia with general cargoes, consisting of hides and skins, raw jute, gunnies, Hessian cloth, and tea. Not one of the fifty-six vessels loaded in the United States for direct return to India. Some of them brought commodities from the United States, but also carried articles for intermediate ports, and gathered up cargo wherever they could do so, thus requiring several months for the return voyage. Of course this fact takes away the value of this channel as a trade connection between the United States and India when time enters into the calculation as an element of importance, and at once suggests that it is better to ship from some American port by direct vessel to Liverpool and transship there direct for Calcutta.

TIME LOST HUNTING RETURN CARGOES.

One importer from the United States, an American, ordered goods shipped by a return steamer from New York, hoping to save money and the possibility of damage to his goods by rehandling at Liverpool. The vessel that received his goods at New York cruised round in the Mediterranean, the Red Sea, and thence to Karachi, Bombay, Madras, and finally to Calcutta. The result was his goods were three months behind the opening of the season when he needed them, and another class of goods included in the same consignment was so long behind promised delivery that he lost many sales and his business was greatly damaged. Since that experience this importer always accompanies his orders with specific instructions to send goods via Liverpool, where they are transhipped to Calcutta. No merchant or importer of goods from America to India who desires his goods delivered promptly, or within a certain time, ships by return vessels from the United States. Of course it would be quite different if the vessels that take cargoes from India to America could get at one point full return cargoes. Then they would make as quick time as possible on the return trip, and the two countries would be connected by transportation that would be mutually beneficial; indeed, this would very soon bring about a large increase in importations into India from America.

The number of vessels which entered the port of Calcutta during the year and their nationality was: British, 1,470; German, 64; French, 13; Austrian, 25; and Italian, 9; total, 1,581. In the light of this British preponderance it is not to be wondered at that Great Britain and her colonies control more than 90 per cent of the trade of India. The grand total value of imports into India through Calcutta from America for 1905-6 was \$2,696,560, or \$1,054,641 in excess of the previous year. The value of exports from India to America for 1905-6 was \$36,804,571, or \$8,663,510 more than the year before. It can not

be expected that the United States will be able to increase trade with India, so far as exports are concerned, until there are regular and direct shipping lines between the two countries. Under discouraging circumstances the United States has some trade with India, which while all too small, shows what might be done.

CANADA.

SHORTENING THE ROUTE TO EUROPE FOR GRAIN SHIPMENTS.

Consul A. G. Seyfert, of Collingwood, Ontario, transmits the following report concerning the navigation of Hudson Bay and the shortening of the transportation of grain thereby to Europe, and the mineral deposits around the bay:

The Dominion government has just published a description of the cruise of the Neptune in Hudson Bay waters. The object of the cruise was to gain information as to the possibilities of a northern route as an outlet for the great grain crop of the Northwest. The conclusion is that Hudson Strait is navigable for ordinary iron steamships from July 20 to November 1, and this period may be increased, without much risk, by a week in the beginning of the season and by perhaps two weeks at the close. The same dates apply to the navigation of Hudson Bay from the strait to Fort Churchill. The approach to the harbor at Churchill, if aided by a few beacons, would be comparatively safe, as the channel is fairly deep and wide. Inside the mouth of the river there is a good harbor. North of Churchill Harbor and along the west coast of Hudson Bay the character of the coast is dangerous, and south of Churchill the mouths of all the large rivers are more or less blocked by deposits of sand, with the result that the harbors can only be entered by small craft. This means that Fort Churchill is practically the only available harbor as a terminus for railways from the northwest or from Ontario, if the proposal to extend the government railways to tidewater is carried out.

1,000 MILES SAVED BY THE BAY ROUTE.

The Hudson Bay route would save 1,000 miles in transportation, besides a considerable amount of delay and handling which now takes place in the transportation of grain from Fort William to the seaboard. As Churchill is about the same distance from the center of our northwest as Fort William, conditions on the new route would be much the same as if ocean steamers loaded from the cars or elevators at Fort William, with the difference that the voyage to Europe would be 1,000 miles shorter.

The report also points out that the question of grain storage presents no real difference, because not 20 per cent of the grain at present reaches the seaboard before the navigation of the year following that in which it is harvested. The summary is that, given a good harbor, such as that at Churchill, and an adequate number of tramp steamships, there will be no difficulty in removing from that port during the season of safe navigation all the grain and other supplies that can be drawn thereto by a single line of rails.

The report also deals with the mineral deposits around Hudson Bay. A valuable mica mine is now being worked at a profit on the north shore of Hudson Strait; iron ore in large quantities is found on the

west side of Ungava Bay, while on the western shore of the Bay between Chesterfield inlet and Churchill, extensive deposits of copper, bearing rocks have been located.

CANADA AND MEXICO.

SUBSIDIZED PACIFIC COAST STEAM FLEET INAUGURATED.

Consul Louis Kaiser, of Mazatlan, supplies the following information concerning the new Canadian-Mexican coast steamship fleet:

A representative of the Canadian-Mexican Pacific Coast Steamship Company, of Vancouver, British Columbia, visited this port and remained here for nearly a week, completing all necessary arrangements for the arrival of the first steamer of the large fleet of iron vessels, the first of which arrived in March. These steamers will make bimonthly trips, running from Vancouver to Salina Cruz and return, touching at all intermediate Mexican ports, including Mazatlan. The number to be put in service will depend upon the amount of business which offers.

The company enjoys handsome subsidies from both the Mexican and Canadian governments, with the proviso that the company's ships can not call at any American port for the purpose of obtaining business, under penalty of loss of subsidies. There are grave doubts expressed here as to the success of this venture, unless the company secures permission to call at American ports, both for export and import business.

CANADIAN LUMBER FURNISHES BASIS FOR NEW STEAMER LINE.

Consul L. Edwin Dudley makes the following report from Vancouver on the establishment of the new steamship line from that Canadian port to the west coast of Mexico:

The tramp steamer Tottenham, an English bottom, has sailed from this port with a cargo of 4,200,000 feet of lumber and railway ties, the largest cargo of such character ever taken from Vancouver. This vessel is bound for Port Marques, Mexico, which is to be the western terminus of the railway from the City of Mexico, and this lumber and railway ties are to be used in its construction.

Arrangements have been perfected that have been under consideration for more than a year past by which there is to be a regular line of steamers from this port to the west coast of Mexico. It is understood here that the Canadian government gives a subsidy of \$50,000 a year and the Mexican Government a similar subsidy. Considerable effort is being made to build up a trade between this port and the ports on the west coast of Mexico.

FRANCE.

FREIGHT FROM EUROPE TO THE DOMINION DIRECT.

Consul J. Martin Miller, of Rheims, directs attention to the fact that steamships of the Canadian Pacific Railway Line that ply between London and Montreal are making Antwerp a port of call after leaving London and before sailing for Montreal. The consul writes:

These vessels do not carry passengers, except possibly steerage, but are exclusively cargo steamers. They maintain a weekly serv-

ice. From the Rheims consulate a fair share of the increasing exports, particularly champagne, is now being shipped via Montreal. Goods consigned to Buffalo, Cleveland, Toledo, Detroit, Chicago, Milwaukee, Duluth, St. Paul, Minneapolis, as well as for Seattle, Tacoma, Portland, and San Francisco, have been shipped in bond to those points via Montreal over the line named.

This line is building up considerable business from several points exporting goods to the United States. I have not figured up the amount or proportion that has been shipped from here to the United States via the Canadian line, but it is a good percentage of the whole, and seems to be advancing.

AN EXHIBITION SHIP.

The following is taken from the London (England) Daily Mail:

It is announced that an exhibition ship will shortly be fitted out with the view of gaining new outlets for French industry and commerce. The vessel is to be arranged as a floating exhibition of products suitable for export, and French manufacturers and merchants will be enabled to exhibit their goods and samples on payment of moderate charges. A number of salesmen, partly drawn from pupils of the commercial schools, speaking at least two languages, will be carried, these being under the superintendence of experienced commercial travelers.

In order to stimulate their zeal all these employees will be paid on commission, and the widest possible publicity is to be given to the vessel's expected arrival at the ports at which she is intended to call. At each place the salesmen will present their samples to the various buyers, and transmit the orders they may obtain to the head office, which will see them carried out. A series of receptions and fêtes are to be held on board with the view of attracting customers.

If this experiment should prove successful the cruise will be renewed annually, and similar vessels fitted out for Asia, South America, and Australasia.

JAPAN.

SUBSIDY BILLS IN PARLIAMENT AND COMPANY ORGANIZATIONS.

Consul-General H. B. Miller contributes from Yokohama the following Japanese newspaper information concerning important movements to extend the Kingdom's shipping interests:

Shares in the projected Japanese Steamship Company, to which subscribers are now being privately invited, are said to be very popular among the Japanese nobility, members of which have applied for 2,400,000 shares. The promoters of the company propose to increase the capital to \$15,000,000.

The Government has introduced several ship subsidy bills into the House of Representatives, some of their provisions being as follows: For Japan Sea services, \$175,000 annually, more than one vessel of 2,000 tons gross and making 14 knots, being stipulated for the direct Vladivostok line, and one vessel of 1,400 tons via ports to Vladivostok; also a 700-ton vessel to Saghalien. For the Shanghai line three vessels, each over 2,500 tons and making 14 knots, and three additional vessels,

are stipulated by the Government. On the North China line four vessels, each of over 1,400 tons and a speed of 12 knots, and two supplementary vessels, are required, and to Korea a 1,400-ton 12-knot vessel. For Yangtse River service steamers aggregating more than 27,000 tons must be prepared and make nine monthly trips in ordinary seasons between Shanghai and Hankow, and six trips during the winter season. Six runs in ordinary seasons and four during the winter shall be made between Hankow and Chichouag, while twenty-five trips on the Shanghai-Soochow line, and a minimum of sixteen between Shanghai and Hungchou and Soochow and Hungchou shall be made monthly.

JAPAN-FORMOSA SERVICE.

Vice-Consul C. L. Chandler, of Tamsui, reports that the Osaka Shosen Kaisha, a Japanese steamship company, intend to add in April or May next a new well-equipped 3,000-ton steamer, the *Sakura Maru*, to their already large fleet in the Formosan trade. This steamer is hired by the Osaka Shosen Kaisha from the Volunteer Fleet Association of Japan, \$200,000 of its cost being paid by the people of Formosa. In time of war she will be used as an auxiliary cruiser. As she is expected to maintain a speed of 21 knots an hour, it is hoped that she may reduce the present five days' sail from Kobe, Japan, to Kelung, Formosa.

NORWAY.

NEW LINE PROPOSED FROM CHRISTIANIA TO MEXICO.

Consul-General Henry Bordewich, of Christiania, advises that one of the larger shipowners of Norway has lately proposed the establishment and maintenance of a permanent line of steamers between Norway, Cuba, and Mexico, the following being the plans as outlined by Mr. Bordewich:

It is proposed as a beginning to employ two steamers of 5,500 tons d. w., costing about \$400,000 each, making six-week trips, starting from Christiania, touching at one or more other Norwegian ports and at an English or continental port, thence to Cuba, Mexico, and Galveston, Tex. On the return trip the intention is to coal and seek freight at Norfolk, Va. By touching at Coatzacoalcas, Mexico, which by railroad is connected with Salina Cruz on the Pacific, it is figured that Norway at the same time would obtain convenient connection with the west coast of Mexico, Central America, and Peru.

It is claimed that many Norwegian goods, such as fishery products and canned goods, wood pulp, ready-made knockdown wooden buildings, condensed milk, paper, cement, brick, monuments, matches, and other articles, would find a ready market in those countries. In return the proposition is to buy from those regions such articles as cotton, grain, flour, foodstuffs, hemp, hardwoods, tobaccos, and oils. The direct route would afford lower freights than now paid.

The originator of the idea has sent in formal petition to the Norwegian Storting asking a subvention of 100,000 kroner (\$26,800) per annum for the next three years, in support of the line. As the board

of trade of Christiania and boards of trade in several other Norwegian seaports, as well as the press of the country generally, favor the proposition, it is likely that a subvention will be granted.

BRAZIL AND PORTUGAL.

SUBSIDY FOR REGULAR VOYAGES.

Minister Charles Page Bryan, of Lisbon, Portugal, transmits the following translation of the proposed law for the establishment and subsidy of a Portuguese line of steamers to Brazil:

The Government is empowered to grant an annual subsidy not exceeding 444,000\$000 reils (\$242,424 American currency) for the period of fifteen years to the joint stock company which shall be constituted to perform regular voyages between the ports of Portugal and those of the United States of Brazil, in conformity with the bases annexed to the present law, of which they form an integral part.

(a) For the granting of the subsidy a public competition shall be opened for the term of three months.

(b) When the profits shall allow of the distribution of the proceeds of a dividend exceeding 6 per cent, a moiety of the surplus profits shall be deducted from the subsidy. If exceeding 8 per cent, two-thirds of the surplus profits shall be deducted from said dividend.

PERU.

SHIPPING CONCESSION GRANTED.

A Peruvian shipping company, to take over a concession from the Government of Peru, offered a year ago with the grant of a large subsidy, is reported by the Berlin Boersen Courier to have been formed quite recently, with a paid-up capital of \$1,500,000, of which \$150,000 has been subscribed by the Peruvian Government. It is proposed to purchase the necessary steamers in Europe, but in the meantime the Government has placed at the disposal of the company several steamers of from 2,000 to 3,000 gross registered tonnage. The object of the company is not only to undertake a regular coasting service off Peru, but also freight and passenger services from Callao to Ecuador, Colombia, Panama, Costa Rica, Nicaragua, Salvador, Guatemala, Mexico, and California to San Francisco. It is intended later on also to establish a steamship line to Europe.

GERMANY.

HAMBURG'S MERCHANT FLEET.

Consul-General Hugh Pitcairn reports that Hamburg's fleet of steamers on January 1, 1906, numbered 634, of 1,711,839 gross or 1,067,861 net registered tons capacity, and on January 1, 1907, the number reached 662, of 1,874,149 gross or 1,167,523 net tons. There was an increase of 27 sailing vessels, the number rising from 430 to 457, but there was a decrease of 6,631 net tons.

[A list of the vessels and places where built and names of owners can be seen at the Bureau of Manufactures.]

MOTOR TRADE.

AFRICA.

GROWING DEMAND FOR AUTOS—KIND OF VEHICLE NEEDED.

Special Agent Raymond F. Crist, writing from Cape Town, furnishes the following valuable information about the use of automobiles and other motor machines in South Africa:

South Africa, and especially Johannesburg and the Witwatersrand, presents a most attractive field for the sale of automobiles and one which has engaged the close attention of motor-car manufacturers of Europe and England, with the result that large numbers of cars of all descriptions have been sold by the manufacturers of those countries. American makers apparently have entirely overlooked this fine market, for inquiry fails to reveal the presence of a representative of more than one American factory in the territory embraced by the British South African colonies.

American manufacturers appear to be quite content with an intermittent and spasmodic forwarding to South Africa of beautifully gotten-up catalogues. This method, while probably calling for no great outlay on the part of any one concern, is nevertheless an absolute waste of printed matter, postage, and time. It can not be said to involve a waste of time on the part of present or prospective automobile users of South Africa, for, from all indications and comments, it is perfectly safe to state that no one here pays any attention to them.

AUTOMOBILES NECESSARY.

Live, hustling representatives are here from English, German, French, and Italian automobile factories, whose efforts have been richly rewarded by large sales of their respective makes in this market, which probably differs in many important respects from any other market of the same size in the entire world. Automobiles in South Africa are not an article of luxury indulged in solely by those desiring a car for pleasure and recreation. They are as necessary to the business success of every man who has relations with the mining industry as the subway is indispensable to the busiest New Yorker. This is readily proven from a slight view of the area over which the mining industry is spread. The Witwatersrand Reef extends in a more or less unbroken line for upward of 70 miles east and west, with Johannesburg approximating its center. Many important mines are located over 50 miles from that city. It is a daily occurrence for a mining engineer or some officer of any of the large importing houses to be obliged to visit a mine 40 or 50 miles or even farther, and involving a run of upward of 100 or 150 miles, which can only be accomplished by means of a motor car. Railway and electric car facilities, while sufficient to satisfy the demands of ordinary interurban travel around Johannesburg, are inelastic and incapable of affording means of transportation to the many places which daily demand the presence of those engaged in the management of the large affairs of the mines. By means of the automobile only can those points be reached. Carriages or other horsepower vehicles are unable to give the satisfaction either in point of time or endurance obtained by the use of the automobile. In fact, so great a factor is

time in supplying machinery "parts" and "spares" that in cases of emergencies automobiles are often called into use in their delivery.

KIND OF VEHICLES NEEDED.

The kind of automobile in use varies considerably, according to the individual fancy, which is the result in great measure of the automobile experience of friends of the prospective purchaser and also to the ability of the salesman to present the merits of his particular make. There are, however, certain basic principles or features dictated by the nature of the work which the car is called upon to perform—the physical condition of the roads over which it may have to travel and certain climatic conditions.

For a car destined to city running a runabout will undoubtedly prove satisfactory. But these are invariably of heavier construction than usually required in America, where smoother roads prevail. The average car in use along the "Reef" is selected for its ability to withstand the hard knocks of roughest roads, climb steep gradients, and to cover a maximum mileage per gallon of petrol or gasoline. Gradients of 1 in 30 are to be met frequently in railway travel, while 1 in 14 is not uncommon for the ordinary country road. It is evident, therefore, that motors with a high hill-climbing efficiency are demanded. From 15 miles upward per gallon of petrol are now required of new cars, although from 12 to 15 miles is said to be the maximum of some now in use.

The horsepower of motors ranges from 6 up to 26–30 horsepower, according to the idea of the individual, but great speed is not a deciding factor, and, in fact, high-speed cars, except on exceedingly rare occasions, are obliged to run on one-fourth or one-half their capacity by reason of the roughness of the roads. Steam cars are not to be found on the Rand to any extent, as they have been found to consume a greater amount of petrol to steam a given distance than direct, explosion gasoline or petrol.

TWO KINDS POPULAR.

Both chain-drive and direct shaft-drive cars are popular. In chain drive the center drive chain is impossible on account of the great quantity of obstructions found, only side drive chains being suitable. With many, however, the direct shaft drive is preferred on account of the great amount of sand to be found in all parts of South Africa, which cuts chains so rapidly as to reduce greatly their life, and is accountable for a large number of breakages. A high clearance is absolutely imperative in all cars. A clearance of at least 11 or 12 inches is demanded, and anything greater without inducing top-heaviness is a desirable feature. An increased clearance is obtained by using wheels of great diameters. Giving continental dimensions, many wheels measure 920 by 120 millimeters, giving a 14-inch clearance; others 875 by 120 millimeters and 880 by 120 millimeters.

Four forward speed gears and one reverse gear are regarded as the essential of the best motor car along the Reef. With only three forward gears it has repeatedly been found that the usual lowest forward gear is too fast to produce sufficient power to plow through the heavy sandy stretches so often found on South African roads, necessitating a frequent resort to the reversing gear and backing the car through such portions of the road. This practice is very damaging to the car.

As the climate of South Africa is exceedingly dry, with the exception of the narrow coast belt, and the rays of the subtropical sun are quite direct, the effect upon all wooden construction is at once evident in motors after a few months service. All veneering, boxwork, and fittings of wooden construction are dried up, warped, and twisted out of shape. To meet this action of the climate all cars now sold have these parts finished in aluminum. Because of the heat of this latitude the air-cooled engines are valueless. According to past experience only water cooling has proved satisfactory. With regard to tires, the heaviest and best quality only are satisfactory.

The roads immediately surrounding Johannesburg, Kimberley, or any of the centers in the mining area, and in fact throughout South Africa, are only fairly well maintained at best, while within a very short distance they become mere tracks worn in the velt, and in other places completely disappear. They consist of two ruts of varying depths and roughness, flanking two paths worn by the hoofs of oxen or horses, while the center is plainly marked by a ridge of from 4 to 8 inches of rough earth and boulders, at times surmounted by a growth of rank vegetation. In many instances the trackless waste presents a far more attractive alternative than the roadway, in spite of the irregularly recurrent ant heaps, boulders, and gullies. This country is essentially mountainous, or at best one of steep hills and heavy gradients, the roads not yet boasting of bridges, fills, or cuts.

INCREASING NUMBER OF MOTORS IN USE.

The register of automobiles in Johannesburg recently shows a total of 768 cars for this year, and five years ago an automobile was a rarity. Upward of 200 are reported by dealers to be in use in Cape Town. The prices of automobiles range from £350 upward, averaging about £400. At a conservative estimate by those qualified to speak, there are in the neighborhood of \$1,000,000 worth of automobiles in constant daily use in Johannesburg alone, while in the entire length of the Reef at least twice that value will be found. From information obtained of various users the life of an automobile in this part of the world has been from two and a half to five years. New recruits are daily entering the ranks of motor car owners, and a continued sale may be confidently predicted both in supplying the places of the worn-out cars and in filling the wants of new purchasers.

American manufacturers should avail themselves of this exceptionally rich field for the sale of motor cars by sending out salesmen to directly represent their machines, and who are competent to set forth the merits and features of their makes. They must be prepared to meet active competitors already in the field from every auto-producing country, whose cars have reputations for meeting the difficulties of South Africa motoring.

A large field is also offered for motor cycles. Most of those now seen are of British and German makes, the latter probably predominating. These machines have a mileage efficiency of from 20 to 25 miles and are much in use. They range in prices around £40 to £50.

While the Witwatersrand is the most profitable field in South Africa for these motor vehicles, still throughout the different colonies, in the chief cities, there is a great interest taken in them and sales are constantly being made. In Durban and Cape Town automobile and motor-

cycle clubs have regular runs, and motor enthusiasts are to be found everywhere.

British South Africa imported £172,569 (\$836,685) worth of motor vehicles during the year ended June 30, 1906.

SWITZERLAND.

FORTHCOMING AMERICAN AUTO TOUR CREATES DEEP INTEREST.

Mr. R. E. Mansfield, consul at Lucerne, finds that the completion of plans for an American automobile tour through Europe this coming summer has aroused unusual interest among European manufacturers and dealers in automobiles, concerning which he writes:

The tour, covering 3,000 miles, beginning at Havre and ending at Liverpool, will be limited to American-made cars. The start will be made about the middle of June, and there are already over 100 entries. An interesting feature of the contest is the penalties that will be imposed against each car for certain alterations made during the trip, such as a change of frames, 300 points; reforging any part of same, 250; change of cylinders (per unit), 300, and so on. A penalty of from 10 to 50 points will also be imposed in case of unjustifiable excess of speed. In case of a number of perfect scores at the conclusion of the tour, a series of tests will be held near Liverpool, where the tour will end, and the prizes will be awarded.

Periodicals devoted to the automobile trade are sounding serious notes of alarm concerning what they are pleased to designate as "the American automobile invasion." It is not the tour alone that is causing the protest, but what is regarded as the "presumption" of American manufacturers, who announce their intention of entering into competition with continental cars in the foreign field. There is a present and constantly increasing demand on the Continent for light and inexpensive motors, a type of car common to the American trade, but one that has up to the present been little exploited in Europe.

In the construction of big, powerful, and expensive cars France has always maintained the supremacy; but the increasing and almost universal interest in automobiling, especially in Europe, where good roads invite all classes to indulge in the pleasures of motoring, has created a demand for lighter and less expensive machines. This demand is practically ignored by the European, and especially the French manufacturers, and people who are anxious to enter the arena of the automobile world, to enjoy the delights of motoring at a nominal expense, are looking to America to supply the demand.

The American manufacturers have arrived at a period when, by standardizing, they are in a position to turn out a machine better calculated to meet the requirements of the motorist, who uses a car for ordinary touring purposes and is content to travel at an ordinary speed, than are any of the European manufacturers, and at a lower price. If good, reliable, serviceable cars of from 12 to 16 horsepower, with touring body, hood, lamps, and tools, complete, can be placed on the European market at a cost of, say, from \$1,200 to \$1,800, according to style and finish, they will prove popular. It is a significant fact, and one that argues well for the American automobile, that many of the European factories, and especially the most

modern plants, are equipped with American machinery and tools for the construction of motors.

PREJUDICE TO BE OVERCOME.

The prejudice against American automobiles which exists generally throughout Europe has been created and is maintained largely by the continental manufacturers. This prejudice, which will continue as a factor in the trade for sometime, can only be overcome or eliminated by a combined and systematic effort on the part of American manufacturers. It would not, perhaps, prove profitable for a firm representing one make of machines to establish agencies at various central points throughout Europe, but a general automobile agency representing several American manufactories could establish branches on the continent, where various types of machines could be kept on exhibition and where repairs and supplies for the motors represented might be kept in stock.

Provision for promptly supplying repairs and replacing parts for damaged or broken machines is an important factor in considering the automobile trade in Europe. In the event of accident or damage to an American car, if there is no place where the repairs can be promptly supplied, the result is much delay, annoyance, and expense to the owner, which serves to strengthen the claim of the local dealers and manufacturers that it is advisable to purchase a motor manufactured on the continent, where repairs can always be promptly secured. For this reason continental agencies for American machines and supplies should enter into the calculation in the plan to invade the European market for automobiles.

SWISS AUTOMOBILES—ZURICH EXHIBITION.

There are in Switzerland many manufactories engaged in the production of automobiles, but there are no statistics available giving the number or value of motors produced annually in the country. The majority of the Swiss cars are high grade and also high priced. They are constructed especially with the view to ascending steep grades, as the country generally is hilly and mountainous. The automobile industry in Switzerland, while comparatively new, is making rapid progress, several new manufactories having been established within the last year or two. Among other machines produced in the country are various types of motor busses and wagons for transporting freight.

The manufacturers of automobiles in Switzerland will give an exhibit in Zurich about the middle of May, which will be limited to cars made in the country. A list of automobile manufacturers and agencies in Switzerland is forwarded for the information of those who may be interested. [Copy of list may be obtained from the Bureau of Manufactures.]

ITALY.

MILAN EXPOSITION PRESENTS AMERICAN OPPORTUNITY.

Consul J. E. Dunning, in the following report, calls attention to the international motor exposition to be held at Milan from May 18 to June 9, and to conditions in the Italian motor trade:

The show will make use of one of the most important structures of the recent Milan Exposition, and will be open to exhibitors from

every country in the world. The true relation of the motor car to European life will be seen in the circumstance that the Italian ministers of war, marine, posts, and telegraphs, and of commerce and labor will take part in the inauguration of the show. The general secretary, to whom communications may be addressed, is Mr. Achille Fusi, of Milan. The president is Count Febo Borromeo. Special attention is being paid by the French manufacturers, who have organized themselves into a foreign committee to take care of their interests.

American manufacturers who wish to "try out" the Italian field, or who are interested in getting their cars before the European markets in general, may use this exposition with confidence that they will get a fair hearing for their claims. It will be Continental in aspect and influence. The Italian market is excellently supplied with machines of its own make, of all grades, styles, and prices. There is no demand for a low-price runabout, and there is much doubt at the consulate that such a demand can be readily created, on account of the great thrift of the Italian middle class.

In Italy the \$2,500 car is regarded as something not entirely practical, excepting as a sort of toy. The Italian manufacturer long ago found out that the cost of a thoroughly built, full-equipped touring car must of necessity stand at a high level. The American makers who are raising their prices instead of lowering them will understand that point.

NO FIELD FOR MIDDLE-PRICED MACHINE.

There is practically no field for the middle-priced machine. If there were such a field, the Italian manufacturers would meet it instantly with a car of moderate price, backed by the reputation and record not yet gained in Italy by American makers.

Only one American house has made any progress in Italy, and that was done by a brilliant campaign of personal representation in the hands of experienced Italian agents, and by a car which happens to have a singularly fine reputation for faithful work at a comparatively low price. Objections must be overcome before any great number of American cars can enter the Italian market. There is but one ground on which such exportations can stand, and that is the ground of superior quality. When the American maker can prove that he is making a better car than the Italians are making, he can sell all he can ship. Until then, he might as well suspend the mailing of illustrated catalogues and all arguments of lower price. It is not a question of comparative cost. Makers prepared to contest the field on this score may confidently go into the Milan show. The Continental market would be keenly interested in everything like a novelty, and particularly in a certain "rakish" type of runabout which has recently appeared in the United States and was exhibited at the New York show. American manufacturers must keep in mind the fact that bodies for Italian cars are made by regular coach builders under contract with the factory, and that their work is among the finest in the world. At the Milan auto show of June, 1905, some of the American cars exhibited were inferior in coach-work finish, not to mention the lack of care which was apparent in their dusty parts. This same lack of care plus inferior original finish was noticeable in

certain American exhibits of motor boats at the Milan Exposition which has recently closed.

American makers of accessories, including lanterns, will find the market well occupied. No catalogue or other indirect methods will be of value in introducing these lines. Actual demonstration on the spot is the one way to results.

HIGH PRICES MAINTAINED.

The Milan factories, having tried the machinery of other countries, have gone to the United States for almost their entire outfit. They do not manufacture from the raw material, but buy the rough parts in the open markets of the world and ship to the Milan factory for finishing, rejecting all defective parts. In July, 1905, there were in Italy 51 factories, with a total capitalization of \$15,000,000, engaged in the making of the chassis alone, and not including the carriage works, tire makers, etc. In January, 1906, there were 100 factories, with a capital of about \$100,000,000. The average price of an Italian car has risen from \$1,200 in 1900, when the industry was at its infant stage, to \$2,800 in 1906, for the chassis alone. The rapid development of the whole trade is evidenced by the estimate that in the last five years, ending with 1906, importations of cars, in number, increased 503 per cent, and the value of the importations 1,100 per cent, while Italian exports increased in number 7,600 per cent, and in value 17,816 per cent.

The following table shows in detail the exportations and importations of automobiles to and out of Italy for seven years:

Year.	Imports.		Exports.	
	Number.	Value.	Number.	Value.
1899 ^a	184	\$51,000	^a 124	\$52,000
1900.....	199	232,800	6	7,200
1901.....	298	437,400	20	20,400
1902.....	276	417,500	30	34,000
1903.....	297	439,600	52	117,200
1904.....	410	821,500	127	238,000
1905.....	667	1,295,610	287	729,200
1906 ^b	800	2,000,000	^b 700	1,750,000

^a Included vehicles of every description.

^b Estimated.

Very probably the automobile industry in Italy will be among the first to be affected by changing conditions of living and of wage. The Government, with the intention of relieving the increasing tension between low wage scale and rapidly enhancing cost of living, has caused the department of labor to go deeply into the question of day pay in sundry industries. It found that the wages paid workmen in automobile factories, per hour, are as follows: Mounting motors, 8 to 10 cents; mounting carriages, 6 to 8 cents; modelers, 10 cents; adjusters, 6 to 7 cents; finishers, 7 to 8 cents; coppersmiths, 7 to 8 cents; blacksmiths, 8 to 9 cents; electricians, 7 cents; and helpers, 4 to 6 cents. Apprentices receive from 1 to 3 cents an hour.

One of the most important Italian manufacturers has just organized a company to make machines in Austria. The Italian company paid a dividend of 20 per cent in its second year of existence. The Italian import duty on cars is \$40 up to 1,100 pounds weight; \$80 up to 2,200 pounds, and \$120 for all over the ton.

GERMANY.

NEW NUMBERING REGULATIONS—LIABILITY INSURANCE.

Consul F. S. Hannah, of Magdeburg, writes that the former apparently successful system of numbering automobiles in Germany has been recently further improved and the means of identification simplified, which he thus explains:

The many precautions that are taken to safeguard the public have proved efficacious. A comparison of casualties in Germany with those in England and France make a favorable showing for Germany in the small number of accidents, and the percentage in which the ownership of the auto was not immediately established was practically nil. The new system of numbering divides Germany into 38 sections. The Kingdom of Prussia includes 13 of these sections, which comprise the 13 provinces of the kingdom; every auto in Prussia must bear the kingdom number I, which is followed by the different letters to designate the respective province in addition to the individual number of the automobile, i. e., a wagon in the Province of Saxony, Kingdom of Prussia, bearing the number 64 would also be marked IM.

The system is carried out further in detail as follows: Kingdom of Bavaria, II; Kingdom of Wurtemberg, III; Grand Duchy of Baden, IV; Grand Duchy of Hesse, V; Alsace-Lorraine, VI; these Roman numbers being followed in each case by letters A, B, C, etc., to designate the particular province. The Kingdom of Saxony differs, in that it uses numbers alone for its different districts, these numbers being followed immediately by the numbers of the individual cars. The other States of Germany, the remaining grand duchies, duchies, principalities, and the three free cities—Hamburg, Bremen, and Lubeck—are designated by special letters, followed in every case by the number of the individual car.

NIGHT ILLUMINATION AND HEAVY DAMAGE LIABILITY.

New regulations have also been prescribed for the manner in which the numbers are to be placed upon the car and particularly in regard to their illumination at night. The use of oil lamps on the side or in front of the number on the rear of the car is forbidden, and in some States only transparent lights are permitted, notably in Prussia, while in others the illumination of the number is permitted by the placing of an electric light above the number, which is, however, in no case allowed to obstruct the view. The shields bearing the numbers are all of a uniform prescribed size, and in every case they must be attached to the car, so as to clear the ground by about 18 inches, the object of this regulation no doubt being to avoid the numbers becoming illegible by dust. Each car must carry the corresponding number in front, and both numbers bear a stamp from the police authorities, which is only placed on the glass or number plate after the latter have been attached to the car and examined by the proper police authorities.

This easy means of identification of automobiles is a matter of great importance to the people of Germany, in that the owner is liable to such heavy damages for any injury to persons or property occasioned by his car. The extent of this liability may be illustrated by the fact that the courts have compelled owners in some cases where lives have

been sacrificed not only to pay large indemnities to the widow or children, but in extreme cases to pay an annuity to minor children until such a time as they have reached an age when they can be considered self-supporting.

This condition makes liability insurance a necessity for the owner of an automobile, which has been provided for by the leading companies at reasonable rates, when the amount of liability is taken into consideration. The rates are based upon the size and horsepower of the automobile. For instance, an 8-horsepower car is insured for an indemnity of \$9,520 for injury to a single person, \$19,040 for two or more persons, together with an indemnity of \$2,380 for property injured, at an annual cost of \$16.18. This, in a way, is a special rate, as it is granted only to the members of the largest automobile and motor-cycle associations, whose doors are open to all respectable people upon the payment of an entrance fee of 71 cents and annual dues of \$1.67. The rate for insurance to nonmembers of this association would be \$34.75, but as other benefits are also derived from the association, the vast majority of automobile owners in Germany is naturally enrolled among its members.

NEW MOTOR WHEEL.

A GERMAN INVENTION FOR AUTOMOBILES AND BICYCLES.

Consul Thomas H. Norton, of Chemnitz, reports that a Saxon engineer has perfected a new wheel intended to replace the use of pneumatic tires for automobiles and bicycles, of which the consul gives the following account:

A manufacturer in Chemnitz has undertaken the construction of this novelty, and it may mark an important step in the evolution of motor vehicles. The fundamental principle is the construction of a wheel which is not rigid, but possesses in itself a sufficient degree of elasticity effectively to replace the resilience of the customary pneumatic tire. The wheel is made entirely of the finest quality of steel—fellies, spokes, and hub. The spokes are not simply radii of a circle, as in the ordinary wheel construction. They are essentially diameters of the wheel. Each diameter, or double spoke, is a round wire or rod, flattened, however, in the middle, where it is firmly attached to the hub, about which it is bent so as to form an angle of about 90 degrees. The entire system of spokes consists, therefore, of a series of Ls arranged about the hub. The latter is formed of two close-fitting parts moving slightly one against the other.

The practical result of this arrangement is that when carrying a load the spoke, for the moment extending to the point of contact between the wheel and the roadbed, is slightly shortened, and its right-angled complement is lengthened to the same extent. The form of the wheel becomes faintly elliptical (all of the spokes and fellies sharing, to a more or less limited degree, in the deflection from the normal position). The compound spoke assumes its original position as the load bears upon its neighbor, and, as the wheel moves forward, there is a constant change in the location of the ellipse. The result of this continual spring-like alteration in the form of the wheel is an avoidance of jar and vibration to the load, i. e., the rider of a bicycle or the passengers of a vehicle, equivalent to that produced by the use of pneumatic

tires. This effect is heightened by the addition of solid rubber tires, covering an air cushion in the channeled concave surface of the wheel's rim.

SIMPLICITY OF CONSTRUCTION AND DURABILITY.

The whole construction is exceedingly simple. The surface exposed to friction in the slight internal movements of the composite hub is easily lubricated and well protected from dust, while the actual friction is so small as to scarcely enter into consideration. It is this simplicity and this freedom from the necessity of frequent attention and the ever-present danger of interruption and delay which will probably appeal powerfully to the users of bicycles and automobiles. The annoyance of punctured tires and the enforced necessity of providing for such emergencies has always been a serious drawback to the otherwise great convenience of pneumatic tires, not to mention their exceedingly short term of life.

The question of durability is, in fact, the most serious one to be encountered by the invention. Numerous experiments show that the spring-like action of the wheel is uniformly secured when it is employed for either the bicycle or for heavy vehicles. It is a matter of common scientific knowledge that steel, no matter how finely tempered, like all other metals, undergoes a slow but steady deterioration in its properties, a gradual lessening in its cohesion and tenacity, when exposed to continuous bending or similar alterations in form. Familiar examples are car axles, suspension-bridge cables, band saws, etc. In the case before us the deflections from the normal position when at rest are comparatively insignificant compared with those of an ordinary carriage spring. Still, in all probability, such a wheel must eventually meet the fate of the deacon's "one-hoss shay." During its lifetime, however, it should offer conspicuous advantages over existing styles in point of reliability and the limited amount of care required. Other favorable features are cheapness, lightness, and simplicity of construction, ease in cleaning, and the reduction to a minimum of friction and consequently of wear and resultant repairs.

SPAIN.

AUTOMOBILES AT MADRID.

Referring to the international automobile exposition to be held this May in Madrid, Consul-General B. H. Ridgely, of Barcelona, sends several prospectuses of the exposition wherein all the conditions are set forth. Copies of the same may be secured from the Bureau of Manufactures. Mr. Ridgely writes:

This will be an excellent opportunity for American manufacturers to exhibit their products, but it must be repeated that it will not be worth while to show any one-cylinder machine here, as there is a pronounced prejudice against them, and virtually no sale for them. This same prejudice even applies to two-cylinder motors, and as a matter of fact there is little demand in Spain for other than those of four cylinders. Manufacturers who can offer a good, robust, cheap machine of this character, of from 16 to 20 horsepower, at prices ranging from \$1,500 to \$1,800, would probably find a prompt market in this country.

A good two-cylinder buckboard, provided the motor did not vibrate

too strongly, however, would sell in Spain, if it could be offered at a reasonable price, and manufacturers having such machines to export would do well to exhibit them at the Madrid show.

With the prospectuses referred to, there are various application books which intending exhibitors can fill up and forward to Monsieur le Directeur de l'Exposition de l'automobile, aux soins du Royal Automobile Club d'Espagne, Madrid, Spain. Automobiles intended solely for display at the exposition will be admitted into Spain free of customs duties.

AUSTRIA.

REGULATIONS FOR OPERATING MACHINES BY FOREIGNERS.

Consul J. S. Twells, of Carlsbad, furnishes the following report on the rules and regulations governing foreign automobilists in Austria:

During 1906, April to November, a large number of American automobilists visited this consular district, in which the well-known Austrian watering places of Carlsbad, Marienbad, and Franzensbad are situated, and as scarcely any owners of machines were acquainted with the regulations in force regarding foreign automobilists, great inconvenience was experienced by many Americans. They thought themselves justified in submitting their grievances to the authorities, hoping to get relief. As the number of Americans coming to this district is likely to be even greater during 1907, travelers using automobiles should make themselves acquainted with the legal rules and regulations now in force, because those who do not understand them may find themselves subjected to disagreeable positions and meet with many troubles and annoyances which could be avoided. The following is an extract from the rules and regulations in regard to automobiles coming into Austria:

For every automobile passing the frontier, no matter whether the automobile remains in the country or not, and without any reference to the machine being old or new, or for private use or business purposes, the full custom-house duty levied must be paid in cash if the machine remains in the country, or the amount is requested to be deposited if it is to be taken out of the country. It is very important that travelers should provide themselves with sufficient Austrian money before they enter the Empire.

A duty must be paid or deposited for machines weighing 800 pounds, \$15 per 100 pounds; from 800 to 3,600 pounds, \$12 per 100 pounds; from 3,600 to 6,400 pounds, \$10 per 150 pounds; and above 6,400 pounds, \$8 per 150 pounds. When producing the receipt on leaving the Austrian Empire the money deposited will be returned to the owner. A machine brought into Bohemia may be used during fourteen days without restriction. After that time its use is only permitted if it has been subjected to a technical examination by a commission appointed by the chief court of administration at Prague. A tax of 120 crowns (\$24.36) is required to be paid for this examination. Machines coming from certain countries with which the Austrian Government has made a special agreement, as for instance, Bavaria, Italy, or Saxony, can be used without an examination three months, but the authorities can forbid its use at any time if thought necessary for the public safety.

All persons driving motor cars in Bohemia longer than eight days must undergo an examination at Prague or Reichenberg to obtain a license for which a tax of 50 crowns (\$10.15) has to be paid. Drivers from Italy may drive three months without any examination or license. The speed of a car must never exceed 9 miles an hour in towns and villages or 28 miles on the highroad; during a fog at crossings, curves, and in all places where special care should be exercised, the speed must not exceed 3½ miles. In inland towns and villages it is not permitted to drive with an open exhaust box.

EGYPT.

PRACTICAL SUGGESTIONS ON HOW TO SELL BOATS.

Consul-General Lewis Morris Iddings, of Cairo, supplies the following information concerning motor boats in Egypt:

There is no reason why American firms should not do a good trade in autoboats and motors generally in this country. A great deal will, however, depend on the quality of manufacture, on first deliveries, on advertising, and on the general manner in which trade is conducted. Several American firms have done themselves no end of harm through little errors or omissions which, with a better knowledge of the trade of this country, could have easily been avoided.

The American motor has given good results in working, and is, besides, more economical than the types of motors built in England and France, but their great disadvantage, as has been proved on nearly every occasion, is that the French, Greek, and mechanics of other nationalities who are in Egypt do not understand the American type of motor, and not only do they ruin it while running it, but once broken down it is cast aside as irreparable. Certain firms in the United States manufacture what they call steel boats, which, on more than one occasion, have proved to be really made of very thin galvanized sheet iron. The result is that the galvanizing wears off after a little time, and the plates get rusted through. Owing to the special manner in which the plates are joined, it is impossible to have the hulls repaired here, the consequence being that the boat is cast aside as useless.

The following are the essential points in motor boats constructed for navigation on the Nile: Length, 21-30 feet; hull, wood, light; draft, 2 feet at the very most; motor, capable of developing a speed of 6 miles an hour against a 2-mile current, and taking up as little space as possible. Several motor boats were running on pleasure trips on the Nile last season. In some cases they brought in as much as \$21 per day, and I am informed that two or three companies here are now in correspondence with manufacturing firms in England for the supply of boats for regular trips to different points up the Nile. There are many rich persons in this country who would doubtless become purchasers if once they understood these boats. The best way to advertise motor boats and get them known would be to send out three or four boats, as described, and have them run by one of the local agencies who has an arsenal and stations at different points on the Nile. It would also be necessary to send out an American mechanic, in order that no risk may be taken of having chances of business in Egypt spoiled through the motors being broken up by persons who do not understand how to work them. [The name of one firm is furnished for correspondence, and is filed for reference at the Bureau of Manufactures.]

SCOTLAND.

RELIABILITY TRIAL FOR TOURING CARS.

The Scottish reliability trial for touring cars, according to information supplied by Consul Austin, of Glasgow, will begin on the 25th and end on the 29th of June, 1907. The course over which the trial

will be conducted will be from Glasgow to Inverness, a distance of 754½ miles. The five American touring cars which participated in last year's trial did very well in reliability, but did not do so well in hill climbing or in the matter of fuel consumption. As these Scottish reliability trials are important for their influence on public opinion, Consul Austin has transmitted printed copies of the entry forms, and of the rules and regulations governing the coming trial, to the Bureau of Manufactures, which can be had by such manufacturers as desire to participate therein. Entries must be made on the forms supplied by the club not later than noon of May 14.

GAS-MOTOR ENGINES.

EUROPEANS PUSHING BUSINESS—BIG SALES EXHIBIT AT BARCELONA.

Consul-General B. H. Ridgely, of Barcelona, reporting on the introduction and method of effecting sales of gas engines in Spain, says:

As an evidence of how European manufacturers are pushing for business in Spain it may be stated that a well-known European manufacturing concern has taken a store on the ground floor of one of the very best buildings in Barcelona, at a rental of nearly \$3,500 a year, and has established a complete stock of gas-motor engines, a stock which not only serves as a sort of permanent exposition, but which is kept sufficiently abundant to readily supply all local demands. Motor gas installations and engines of from 8 to 100 horsepower, for poor gas, are sold at the following prices: Eight horsepower, \$1,070; 16 horsepower, \$1,785; 20 horsepower, \$2,232; 50 horsepower, \$4,930, and 100 horsepower, \$6,425. For rich gas, motors of 1 horsepower are sold at \$223, and those of 5 horsepower at \$518.

This company has already been doing business successfully in Spain, and this new installation in a beautiful showroom in the most fashionable part of the city is probably fully warranted by the growing demand in Spain for first-class economical gas engines. In various reports from this consulate-general the suggestion has been urgently made that a permanent exposition of American engines, machine tools, and machinery in fine show and sales rooms be established here, but the manufacturers have never taken any steps in that direction.

INCREASED USE OF MOTOR CARS.

M. Faroux, a French statistician, estimates that about 550,000 motor cars have been manufactured in the nine years since the experiments of self-propelled road vehicles first succeeded. These machines sold for more than a billion dollars. Until a year ago France, the pioneer, led the world in the production of the motor vehicle. Now the United States has taken the lead. According to M. Faroux, the United States built 60,000 automobiles in 1906; France, 55,000; England, 28,000; Germany, 22,000; Italy, 19,000, and Belgium, 12,000. In 1901 the United States built only 314 cars, and that same year France built 23,711. There are 20,212 automobiles owned within 50 miles of the New York city hall.

CARTS AND CARRIAGES.

AFRICA.

CLASSES OF VEHICLES IN DEMAND—SALES OPPORTUNITY.

Consul-General Julius G. Lay, of Cape Town, finds that one of the opportunities which American manufacturers have overlooked in South Africa is the market for Cape carts, which he thus describes:

An attempt was made three years ago by a local agent to establish a market for American-made carts by importing seventeen from catalogue, but they arrived here faulty in almost every particular. The tacks and nails fastening the upholstery, instead of being copper or brass, were steel, and of course arrived rusted; the hoods were of imitation instead of good leather; the poles, instead of running through to the back of the cart projected under the body only 18 inches, and the boxings were not fitted into the hubs, entailing extra expense to the importer. These carts were sold at a loss for what they would bring, and the American vehicle trade would have suffered less had these carts never been landed in South Africa. Naturally the experience of this importer has become known to others, but several dealers say they are convinced that American manufacturers can, if they go about it in the right way, sell a satisfactory Cape cart in South Africa at a good profit.

Government statistics show that 5,337 carts were manufactured in 1904 in Cape Colony alone. These figures of course do not include the small number imported from England. The most popular double Cape cart for two horses seating four persons with hood sells retail here at between \$365 to \$438, and is built in accordance with specifications. [The specifications will be loaned to American carriage builders by the Bureau of Manufactures.]

PROFITS FOR AMERICANS.

The export price for a similar cart in the United States is \$175, or about \$235 landed here after paying duty and freight, which would leave a good margin for profit. Now, the American exporter will naturally ask why, if there is such a good profit in Cape carts, does not an enterprising South African firm buy them from the United States. Because experience has taught him that he is obliged to pay cash in New York for an article which, so far as the samples already sent here are concerned, does not suit this market. It is useless for American manufacturers to try to convince the people of South Africa that their cart is an improvement on the one that has stood the test on the roughest kind of roads for several generations.

The South African dealer in vehicles is very apt to compare, side by side, the finish and quality of an American vehicle with that of English manufacture for which he gets double the price, and perhaps less profit, so it would be advisable in seeking to introduce this line here to pay especial attention to details in finishing.

It is recommended that American carriage makers first buy a sample of the best cart made here, copy it, and then supply their agents in the principal centers of Cape Colony, Natal, Orange River

Colony, and the Transvaal with Cape carts that can be examined on the spot, and it will not be long before local agents will order further shipments, and will then be willing to pay cash in New York. Either this method must be adopted to secure a sound trade, or the manufacturer must be prepared to stand by his agents or representatives here, especially in seeing that their goods are as represented, both by sample and catalogue. If certain parts are represented as being made of hickory, let them be hickory. If cushions or hoods are represented as being leather, they should be leather and not some imitation or composition which is not leather.

In many instances American trade with this country has suffered for the reason that flowery catalogues were sent out misrepresenting the actual facts concerning the goods made. In other instances manufacturers have failed to fill orders with goods equal to samples submitted, and consequently have greatly disappointed their customers, who have come to the point where they are very suspicious of many things American. The term American leather has come to be used here for an article which is not leather at all, but an imitation. Illustrations of Cape carts manufactured in this colony, with retail prices attached, are sent herewith. [These and a list of Cape Town dealers in and importers of all kinds of vehicles will be furnished on application to the Bureau of Manufactures.]

BRAZIL.

A SMALL BUT GROWING MARKET FOR RUBBER-TIRED VEHICLES.

Consul-General G. E. Anderson, of Rio de Janeiro, responding to a number of inquiries from American manufacturers in regard to a market for rubber-tired vehicles in Brazil, says:

As to possibilities in the line of manufacturing rubber tires for vehicles in Brazil and of furnishing vehicles generally therewith, it is possible that American manufacturers may be able to accomplish something by correspondence with dealers in Brazilian cities. The comparative number of vehicles in Brazil is not large. A good many carriages and "tilburys" are found in Rio de Janeiro and Petropolis, its fashionable suburb, and a few in other Brazilian ports. Heretofore the pavements in the cities have been so rocky and rough that solid-rubber tires would have lasted but a short time. The rubber tires now used come principally from France, although some are manufactured in Brazil. Solid rubber tires for a Victoria cost here, at present exchange, about \$140 American gold; pneumatic tires about \$190.

The import duty, counting imposts and similar expenses, amounts substantially to 50 per cent. With the well-improved streets and avenues of Rio de Janeiro and one or two other cities in Brazil it is now possible to greatly increase the trade in those goods. The business probably would not be great enough to justify a man in the field, and it will be difficult to start a new business by correspondence. However, American firms desiring to attempt the latter method may address several leading firms in Rio de Janeiro. [Names will be furnished by the Bureau of Manufactures.]

TARIFFS.

CHANGES AND REGULATIONS.

ARGENTINA.

REPAIR PARTS OF MACHINERY.

Mr. A. M. Beaupre, minister to Argentina, transmits an Argentine executive order which, at the request of large importers, interprets article 26 of the law No. 4933. The first paragraph of the law in question reads:

The repair pieces of whatever metal or material and of whatever form and nature they may be which show that they are such, and whose application to the machines for which they are destined can be proven, whether included in the tariff of values or not, shall enjoy the benefits accorded in this law to the entire machine.

The difference of interpretation of this paragraph, that gave rise to the importers' request for an expression of opinion by the minister of finance, is in regard to the benefits extended to the tariff valuation, the customs officials claiming that they end with the rate of duty paid. In the case of agricultural implements, which come in free, these two interpretations should result the same—for free at one valuation or free at another valuation is the same. In the case of machines that pay duty, however, there is ground for difference. Engines, for example, weighing more than a ton are valued for tariff purposes at 15 centavos (peso = 100 centavos = \$0.965) per kilo—2½ pounds—and pay a duty of 5 per cent on this valuation. Repair parts of engines, the importers claim, should pay the same duty, but an exception has been made in the case of brass repair parts, which were compelled to pay 5 per cent on a valuation of 90 centavos, the valuation in the tariff for brass goods.

This discrimination against brass repair parts was made, it is said, at the instance of Argentine brass founders, who claimed that under cover of article 26 of the law brass fittings were brought in as repairs and the law thus evaded. It was resolved in the decree just issued by the minister of finance to refer the matter to Congress, and the importers declare that they intend to follow the matter up and to get a clearer wording of article 26 of the law.

PORT SERVICES.

PORT MANAGEMENT OF BUENOS AIRES AND LA PLATA.

Consul-General Alban G. Snyder, of Buenos Aires, reports that by an executive decree recently issued the services of the ports of Buenos Aires and La Plata for the present year are to be placed in charge of a special committee, which will have jurisdiction over everything

touching the dispatch of ships, management of the cranes, and of merchandise in or out of the port, the warehouses, and the movement of cargo, and will organize and draw up resolutions, subject to executive approval, for the method of preservation and exploitation of the port, the execution of which regulations will be carried out by the director-general of the port. The committee has power to decide every question that may arise as to the application of the regulations, but such decisions as from their nature or importance may require the approval of the Government must be submitted to the national executive.

The committee, consisting of nine members, must organize a board of arbitration for studying the conditions of the work and settling all conflicts which may arise between workmen and employers, for which purpose these latter will also have representation on it. The subsecretary of finance is president and the committee will choose the vice-president.

EGYPT.

NEW VALUATION TARIFFS FOR ANIMALS, COAL, AND COKE.

New valuation tariffs for cattle, coal, and sugar came into effect January 1, 1907, and are to remain in force until December 31, 1907, or until further notice. The Egyptian tariff provides for a uniform rate of 8 per cent ad valorem, except oxen, sheep and goats, coal, petroleum, and wood for buildings, which are subject to 4 per cent. The appraisal of the value of imported merchandise is not left, as a rule, to the discretion of the customs officials, but is fixed in so-called valuation tariffs published from time to time to meet the changing prices. The following is the new valuation tariff for animals as published by the Board of Trade Journal January 31, 1907:

Country or place of origin.	Description of animals.	Valuation per head.
		<i>£ E. Mill. s</i>
Cyprus.....	Oxen.....	5 500
	Sheep.....	0 700
	Pigs.....	2 250
	Sucking pigs.....	0 220
Roumania, Bulgaria, Servia, and Montenegro.....	Oxen.....	6 000
Beirut and Tripoli (in Syria).....	do.....	5 000
	Sheep.....	0 800
	Goats.....	0 600
	Buffaloes.....	6 000
Messina, Alexandretta, Latakiah, Bagdad, Moussul, and Persia.....	do.....	6 000
	Oxen.....	2 750
	Sheep.....	0 800
	Goats.....	0 600
	Pigs.....	1 800
Bengasi, Tripoli (in Barbary), and Darna.....	Oxen.....	3 000
	Sheep.....	0 700
	Goats.....	0 500
Anatolia and Turkey in Europe.....	Buffaloes.....	6 000
	Oxen.....	3 500
	Sheep.....	0 600
	Goats.....	0 500
	Pigs.....	2 250
Malta.....	do.....	4 500

^a £ E. 1 = 1,000 millième = \$4.943.

The following is the new tariff for coal and coke for 1907:

	Valuation per 1,000 kilos (2,204 pounds). ^a
South Wales coal—Cardiff, Swansea, Newport.....	£ E. <i>Mill.</i> ^b 1 040
Newcastle, Sunderland, and other north country coal.....	0 820
Lancashire, Yorkshire, North Wales, and Scotch coal.....	0 800
Newcastle gas coal for the use of the gas factory.....	0 710
Briquettes (patent fuel) of any origin.....	1 000
Dust, slack, and small coal of any origin, excluding nuts.....	0 600
Foundry coke and cannel coal.....	1 300
Gas coke of any origin.....	1 000
American coal.....	1 100
French, Belgian, and German coal.....	1 20
Anthracite coal of any origin.....	1 200

^a Duty is levied on these valuations at the rate of 4 per cent.

^b £ E. 1 = 1,000 millims = \$4.943.

CENTRAL AFRICA PROTECTORATE.

NEW RATES OF DUTY.

The British Central Africa Gazette for October 31st last contains an ordinance (No. 8, of 1906) which consolidates and amends the customs regulations of 1895, and succeeding years, which were previously in force in the protectorate. The present ordinance provides for the imposition of import and export duties, road and river duties, wharfage dues, registration fees, and other charges, and also lays down the regulations to be observed on the importation and exportation of goods into and from the protectorate.

The import and export tariffs of the protectorate are now as follows:

IMPORT.

Articles.	Rates of duty.
Goods for the commissioner.....	Free.
Current coin of the realm for circulation in the protectorate.....	
Agricultural implements and materials for making roads, bridges, railways, tramways, and telegraphs, and such machinery as the comptroller of customs shall decide to be for manufacturing and not for domestic use.....	
Materials to be used as coffee manure.....	
Cotton seed.....	
Bisulphide of carbon, corrosive sublimate, Paris green, London purple, and insecticides of a similar nature.....	
Vehicles, which includes bicycles and any wheeled carriages or wheels or other parts of such carriages.....	
Live stock.....	
Passengers' baggage (as defined in the ordinance).....	
Samples, show cards, and advertisements of no commercial value.....	
Wines, beer, and other fermented alcoholic liquors.....	10 per cent ad val.
Distilled liquors, except scents and perfumes.....	15s. per pt. gal. ^a
Scents and perfumes containing distilled and alcoholic liquors.....	10 per cent ad val.
Preparations for manufacturing purposes containing alcohol (viz, methylated spirit and the like preparations) mixed with naphtha in such quantities as to make them wholly unfit for use as a potable spirit.....	10 per cent ad val.
[The quantity of naphtha is to be at least 10 per cent by bulk or weight of the alcohol.]	
All other articles.....	10 per cent ad val.

EXPORT.

Articles.	Rates of duty.
	s. d.
Ivory-----per pound-----	0 9
Hippopotamus teeth and rhinoceros horns-----do-----	0 1
Rubber other than rubber collected from cultivated trees or plants-----per pound-----	0 4
Gold other than gold coin-----per ounce-----	1 0
Sheep and goats (permitted to be exported)-----per head-----	1 0

* And so in proportion for any greater or less degree of strength or any greater or less quantity.

A drawback of the full import duty is allowed on gunny bags, gunny cloth, sacking, and hooping, and other materials imported into the protectorate and used for packing cotton or other produce of the protectorate for export.

GERMANY.

CONVENTIONAL RATES EXTENDED ON SILKS.

The British ambassador at Berlin forwards to his Government the translation of a memorandum from the German imperial foreign office in reply to a question whether Chinese silks dyed in England and shipped thence to Germany would be recognized there as British products.

It appears that no decision has ever been given on the question of principle involved, viz, as to the customs treatment in Germany of goods which, though originally produced in a country not entitled to most-favored-nation treatment, are imported into Germany after having been worked up or submitted to an industrial process in a State to which such treatment is accorded.

The usual practice, however, in cases where reciprocity is accorded, has been to grant such imports most-favored-nation treatment in respect of customs duties, and the German Government considers that in the case of Great Britain this practice is properly applicable to the Chinese silks in question. Such silks are accordingly admitted into Germany at the conventional rates of duty on sufficient proof being afforded that they have in reality gone through some process of working up in Great Britain.

TURKEY.

SAMPLES OF COMMERCIAL TRAVELERS.

Consul-General E. H. Ozmun reports under date of March 1 that the Imperial Ottoman Government, desirous of assisting commercial travelers, has decided that in future seven-eighths of the customs dues collected on the samples of these travelers shall be returned to them on their departure from the Turkish Empire, whatever the point of departure, and notwithstanding that the customs office called upon to make this repayment may not be the office which collected the amount of the duty originally. In order to make this repayment possible by any custom-house in the Empire, the customs authorities shall draw up in duplicate a list of the samples imported by the commercial traveler, and on the presentation of this list when leaving the Empire the reimbursement will be effected.

SANTO DOMINGO.

IMPORTATION OF GUNPOWDER AND SHOT PROHIBITED.

A Presidential decree issued by the President of the Republic last December prohibits until further notice the importation of gunpowder, percussion caps, and small shot.

BAHAMAS.

ADDITIONS TO THE DUTY-FREE LIST.

The tariff amendment act 1906 provides for the free importation of the following articles into the Bahama Islands: Bees; dynamite; boars, bulls, rams, stallions; poultry; fresh meat, dead poultry and game; syphons, or syphon bottles for containing aerated waters; wheeled invalid chairs.

SALVADOR.

CERTAIN MACHINERY AND WIRE PUT ON THE FREE LIST.

According to a report received by the British board of trade, a recent decree issued by the Salvadorian executive provides for the admission free of duty of machinery enumerated in Nos. 101 and 339 of the customs tariff, together with the spare parts and accessories thereof. This includes lathes, pumps, machinery of all kinds for manufacturing purposes, motors with any kind of power, lithographic presses, and heavy machinery of all kinds not specified in the tariff.

BOTTLE STOPPERS.

A further decree of the executive provides that gutta-percha stoppers or stoppers of any other material, grooved or screwed, used for mineral and aerated water bottles, are to be dutiable under No. 413 of the tariff at the rate of 1 cent per kilog.

NICARAGUA.

INCREASE OF DUTIES ON SALTED MEATS, BUTTER, AND SOAPS.

United States Consul Ryder, of Bluefields, Nicaragua, reports, under date of February 26, 1907, that by recent Presidential decree import duties upon the following articles have been increased and made operative:

		Centavos.
Butter	per kilo...	40 to 80
Pork shoulders	do.....	15 to 30
Salted meats	do.....	15 to 30
Soap (laundry)	do.....	5 to 10

Duties on the Atlantic coast of Nicaragua are payable in soles at 48 cents; on the Pacific coast in Nicaraguan currency at 5.50 pesos (\$2.70 American). The above, however, does not apply to San Juan del Norte, where there is a special import duty of 20 per cent ad valorem, United States currency.

The retail price of butter in Bluefields is 77 cents; ham and salted meats, 36 cents; laundry soap, 15 cents per pound, in United States currency.

TEXTILES.

SILK PRODUCTS.

FRANCE.

METHODS OF MANUFACTURING ARTIFICIAL FIBER—EXTENT OF ITS USE.

Consul Hilary S. Brunot, in a report reviewing the business of the St. Etienne district for the calendar year 1906, furnishes information in regard to the manufacture of artificial silk in France which will be especially interesting to those engaged in the silk industry in this country. The consul says:

'The ribbon industry has received within the last six months an impulse which bids fair to last for some time. All the looms are working, and weavers are in great demand. As to the kind of ribbons, preference is given to mousseline, crape or chiffon, taffetas, and striped satin. The advanced price of raw silk has induced many manufacturers to employ artificial silk, at least for the woof or cross threads. It is cheaper and gives a fine brilliancy to the manufactured material. The total value of ribbons exported from this district during 1906 was over \$17,000,000, of which \$1,137,000 was declared for the United States through this consulate.

As artificial silk is being employed in the manufacture of ribbons in this district it may be of interest to give a short sketch of this substance, which seems destined in the near future to replace to some extent the natural product. For a long time it had been said that natural silk was nothing but mulberry leaves transformed by the silkworm. That definition was more than absurd, as there is no analogy between the chemical composition of natural silk and that of the mulberry leaves; one is the product of animal elaboration, possessing the chemical composition of quaternary substances—albuminoid substances, for instance—while the other is of a cellulose nature—that is to say, formed by a ternary substance (nonnitrogenous). Consequently, *a priori*, there appears to be no relation between the cellulose of the mulberry leaves and the silk of cocoons. And yet, strange as it may appear, the product which in the future will perhaps replace natural silk is precisely constituted by this same cellulose to which has been refused any chemical relation. Cellulose in fact, after having undergone a series of transformations destined to modify its properties, furnishes a brilliant and elastic substance, capable of being drawn out into very fine threads to which the name of artificial silk has been given. But emphatically it is not silk.

THE CHARDONNET DISCOVERY.

The industry of artificial silk is relatively recent. It dates from 1884, when a French engineer, Count Henri de Chardonnet, took out the first patent, and at the Paris Exposition of 1889 the first results

of this invention were seen. This beginning was not such as to excite much enthusiasm, as (although the product obtained by the de Chardonnet process had all the appearance of natural silk) it was constituted by nitrocellulose, and consequently highly inflammable, thus rendering its applications very limited. In 1890 de Chardonnet modified his process by adding a special manipulation by which the cellulose was obtained in the pure state and unflammable. From that moment the industry of artificial silk was soundly established, and the profits of the commencement induced others to imitate and further perfect the process.

De Chardonnet employs pure cellulose as raw material, obtained from carded cotton preferably to that of wood, which contains a certain amount of mineral substance rendering the product friable. This carded cotton is treated by a mixture of nitric and sulphuric acids, becoming thus gun cotton, which in its turn is dissolved in a mixture of alcohol and ether to obtain collodion. The collodion is compressed into steel tubes possessing a resistance to pressure of 100 atmospheres, and having on their sides small glass tubes connected by a commanding cock. When this is opened the collodion escapes through an infinite number of the finest pin holes, dries almost immediately, and presents the aspect and touch of natural silk. But this thread, constituted purely of gun cotton, is extremely inflammable. To render it as incombustible as natural silk, it is treated with a solution of alkaline sulphur or of ferrous salt. It is then wound on spools or reeled into skeins.

This silk is much more resisting than natural silk. It is even more brilliant and takes the dye more quickly. But it suffers from prolonged washing, a grave defect. Nevertheless, mixed with animal silk, it is utilized in the manufacture of those stuffs which do not require washing, such as ribbons.

THE BRENNERT PROCESS.

In 1900 Brennert patented another method of treating the cellulose. It consists in dissolving carded cotton in a cupro-ammoniacal liquor known as Schweitzer's solution and by passing the viscous liquid through the gage plate. The thread formed is treated by sulphuric acid, which dissolves the copper, neutralizes the ammonia, leaving behind pure cellulose.

The silk obtained by the Brennert process presents some advantages over the preceding. It is cheaper, less dangerous to manipulate, and is less injured by water. It has only one drawback—it is less brilliant, and consequently less attractive and less employed.

There exists a third method, placed on the market quite recently, which seems to have a good future, as its application extends further than the ordinary limits of artificial silk. It is the process termed "viscose." Here the cellulose is dissolved in soda lye; the product obtained treated with sulphide of carbon becomes viscous, hence the name. This viscose, after having passed through the pin holes, is slightly heated, by which the cellulose is freed from the sulphide and alkaline matter. The thread of this process is more brilliant, more supple, and more elastic than the De Chardonnet thread. Moreover, it is insoluble in water, and the cost price is only one-third of the De Chardonnet silk, \$1 per kilo (2½ pounds). This same viscose,

when in the mass and decomposed by heat, can be converted into transparent and hard cellulose capable of being run into molds, and is thereby a serious competitor of celluloid, which is much dearer.

Artificial silk, in an industrial point of view, presents consequently a great deal of interest, and is claimed to be in every way equal to the natural product.

TURKEY.

PROGRESS OF SILK CULTURE.

Consul-General Edward H. Ozmun, of Constantinople, advises that silkworm culture has made progress in the province of Aleppo, where many mulberry trees have been planted, with the following results:

The harvest of cocoons in this district has attained 1,430,000 pounds, of which quantity more than 1,100,000 pounds are produced in the Antioch region. Forty-five thousand ounces of silkworm eggs were put to incubation, of which the half of large yellow cocoons came from Var, 12 to 15 per cent from Italy, and the remainder were of local origin, including some from Broussa, Turkey. The local egg culture progresses to the detriment of foreign importation.

It may be of interest to add some statistics from Broussa, the great silk-producing district of Turkey. During the year 1905 there were exported 860,123 ounces of silkworm eggs, of which 857,501 ounces were for the Caucasus and Persia. Of the cocoon harvest, 12,634,000 pounds, 132,550 pounds were exported, almost entirely to Italy. The production of raw silk was 982,234 pounds, of which 948,145 pounds were exported to Europe: 90 per cent of this amount went to France.

COTTON MANUFACTURES.

MANITOBA.

AMERICAN GOODS NOT COMPETING, AND THE REASONS THEREFOR.

Consul S. H. Shank, writing from Winnipeg in regard to the importation of American cotton goods into Manitoba, says:

The markets for cotton fabrics in Canada are largely controlled by half a dozen Canadian mills. It is estimated that 90 per cent of the western trade is supplied by these concerns. The other 10 per cent is supplied almost wholly by English mills. Practically nothing is imported from the United States, on account of the high tariff on cotton goods, which ranges from 20 to 35 per cent. The British preferential tariff ranges from 12½ to 25 per cent. Goods costing less than 7 cents per yard can not be profitably imported, even under the British preferential tariff, and only a few fancy lines are imported into this country.

The following lines make up the largest part of the market of western Canada: Denims and printed drills; tickings, woven and printed; cotton duck, made in three grades in Canada, the cheaper grades being largely in demand; fancy prints, woven gingham, and shirtings; cotton blankets; sheetings; bleached and unbleached; bleached

cottons, cambrics, and long cloths; and factory cottons costing from 3 to 8 cents per yard.

There is no combination among the cotton manufacturers of Canada, but each company confines its output to certain lines, and consequently there is no competition. Owing to the high tariff, there is little opportunity for American manufacturers to get into the cotton trade in this district. Occasionally a sale of some fancy line is made, but the extension of this trade is handicapped by the practice of American mills of selling their goods only in case lots. In order to get a certain pattern the dealer is compelled to buy some three or four patterns which are not salable in this market, and this prevents him from purchasing certain patterns for which he might find ready sale; whereas the Canadian and British mills will sell any quantity of one pattern. If this practice of the American manufacturers were discontinued some trade might be worked up in fancy lines, as the Canadian mills do not make any effort to secure this class of trade, and it is now almost wholly supplied by the British mills.

The nearest mill to this market is at Hamilton, Ontario. The freight rate by lake and rail from Hamilton to Winnipeg is 68 cents per hundredweight in carload lots and 76 cents per hundredweight in less amounts. The all-rail rate is \$1.12 in carload lots and \$1.22 for less amounts. [A list of wholesale dry goods houses doing business in Winnipeg is on file in the Bureau of Manufactures.]

ASIA MINOR.

SUCCESSFUL INTRODUCTION OF AMERICAN FABRICS.

Consul Evan E. Young writes from Harput in regard to the introduction of American fabrics:

It gives me pleasure to report the measure of success which has attended the efforts of this consulate during the past year to increase the exportation of cotton goods from the United States to this consular district. In response to a brief report, published in Daily Consular and Trade Reports (No. 2509), numerous samples of sheetings, prints, etc., were received. It is worthy of notice that the only firm which, in submitting its samples, followed the suggestions contained in the report mentioned above was the only one to secure trial orders. The goods arrived in excellent condition, met with a ready sale, and another substantial order was sent. The demand for these American goods continued so active that a third order was sent by cable.

One year ago American cotton goods were practically unknown in this region outside of the two cities of Harput and Mamouret-ul-Aziz, while now they have entered and bid fair to command the markets of Diarbekir, Arabkir, Egin, Malatia, and practically all the leading towns of the consular district. The market here for cotton goods is large and growing, and while competition is keen, there is apparently no reason why the United States should not have a most satisfactory share in this trade.

BOHEMIA.

PROSPEROUS YEAR FOR MANUFACTURERS—INCREASED PRODUCTION.

Consul Urbain J. Ledoux, of Prague, in his report reviewing the commerce and industries of Bohemia for the calendar year 1906, says

the cotton industry passed through most extraordinary stages, such as have not been recorded for decades.

The first part of the year the market was, as usual, chiefly ruled by the fluctuations of the raw materials, but the position was so changed toward the fall that the influence of the raw materials was almost set aside. In the same period business in all branches was very slow, being unfavorably affected by the announcement of a larger area of cotton sown in the United States, which caused prices to decline. The lowest point was reached about the beginning of September, and from that time, though the larger crop estimates remained unmodified, there was a steady advance in prices. The improved tone of the market was therefore not due to any modified views regarding the cotton crop, but was brought about by an extraordinary demand which taxed the production of all industrial states.

OUTLOOK FOR CURRENT YEAR.

Orders for Bohemian cotton goods were received from various countries where under ordinary circumstances the local cotton industries had but little chance of success, and even England and Germany appeared as eager buyers in order to make up for the extraordinary demand in their local and foreign markets. Apart from the impetus received from abroad, the cotton industries were further benefited by the increased purchasing power of the home population, due to abundant crops and advance in wages.

The production in Bohemia was increased by about 40 per cent, and as most of the spinners and weavers are under contract for their full production for the first six months of 1907 and a large portion of their production for the second half year 1907, there is assurance of prosperity for the cotton industry.

SOMALILAND.

SUCCESS OF AMERICAN SHIRTING.

It is stated in the British colonial report for the fiscal year 1906 on the Somaliland Protectorate that the place of European white long-cloth is being taken by the "plain but more durable" American gray shirting, which is in great demand at all the ports, except Zaila, where, owing to the competition due to the Jibuti-Harrar Railway and the fact that the market was overstocked in the previous year, the value of the American article shows a decline of \$49,850 in the import returns.

Besides other piece goods the principal imports of Somaliland are tobacco, glass and amber beads, bags and sacks, enameled ware, building material, drugs and medicines, iron and steel ware, kerosene, bread-stuffs and canned provisions, etc. The value of the trade of British Somaliland amounted in 1906 to \$2,322,800, of which \$1,309,171 were imports, about 60 per cent of which pass through Berbera, the balance mostly going to Bulhar and Zaila. The exports were skins and hides, sheep, goats, camels and cattle, gums and resins, pearls, and ostrich feathers, and totaled \$1,017,000.

COTTON GROWING.

INDIA.

LARGE INCREASE IN YIELD—EXTENT OF EXPORTS.

The final general memorandum of the Indian cotton crop of the season 1906-7 has been issued by the government of British India, the following being its main features:

The total area in all territories reported on is now computed as 22,344,000 acres, which marks a net advance of 1,272,000 acres, or 6 per cent on the final figure for the previous season. The total estimated outturn amounts to 4,908,000 bales of 400 pounds, the increase in this case being one of 1,482,000 bales, or 43.3 per cent. [The yields of previous years were stated by Consul Fee, at Bombay, to have been: In 1905-6, 3,240,000 bales; in 1904-5, 3,818,000 bales; and in 1903-4, 3,168,000 bales. An Indian bale weighs 100 pounds less than an average American bale.—B. of M.]

The character of the season has been generally favorable, though the crop has suffered from disease and insects in various quarters. The condition of the crop is reported to be good on the whole.

British territory estimates its crop at 13,537,000 acres and 2,935,000 bales. This marks a net contraction of 486,000 acres, or 3.5 per cent, which is more than accounted for by the marked shrinkage in the Punjab, where the season of 1905-6 was disastrous to cotton. In yield, there is an increase of 704,000 bales, which is equal to 31.5 per cent of last year's crop in British India, but here again it is necessary to bear in mind that the outturn in Punjab and some other provinces in the previous year was extraordinarily poor.

Native States report an area of 8,807,000 acres and an outturn of 1,973,000 bales, the increases as compared with the figures of last season being 1,758,000 acres (24.9 per cent) and 778,000 bales (65.1 per cent).

India's exports of raw cotton by sea to foreign countries have been for the period April to December as follows (in hundred-weight): In 1902, 3,287,340; in 1903, 4,941,376; in 1904, 3,615,046; in 1905, 4,865,593, and in 1906, 4,369,678.

FRENCH COLONIES.

EFFORTS TO GROW LARGER CROPS.

A dispatch from Paris says that the French Colonial Cotton Association, which was started a few years ago by French cotton manufacturers for the purpose of ascertaining where cotton could be advantageously grown in French colonies, have obtained results which, it assumes, will in a few years enable them to draw a considerable portion of the cotton consumed by them from the French colonies. American seeds were supplied free in Algeria, Tunis, French Sudan, Senegal, French Kongo, Dahomey, Madagascar, Indo-China, and Guadeloupe. In 1906 the French colonial office gave the society a subvention of \$13,000. Gins have been established in the colonies where experiments have been made, and the society believes that cotton in unlimited quantities can be grown in the French Sudan and in the country back of the Ivory Coast. The society hopes to realize 500 bales of cotton in 1907, from its experiments in all the French colonies.

ORIENTAL CARPETS.

HOW THE WORK IS CARRIED ON IN PERSIA AND ASIA MINOR.

Consul E. L. Harris, reporting on the manufacture of carpets in Persia and Asia Minor, nearly all by hand work, says:

The carpet industry flourishes as never before in both Persia and Asia Minor. The market value of the carpets may be the same in the two countries, yet a great difference exists in the way they are made. This applies not alone to the various shapes and lines, but to the grouping of forms and colors as well, which enables even one unskilled in the business to distinguish between the make of Smyrna and that of Tabriz. The article which is sold in the world's markets as the celebrated Smyrna carpet is not made in Smyrna; it is a product of the vilayet of Aidin, of which Smyrna is the capital. The chief places of manufacture are the villages of Uschak, Koule, Ghiardis, Makri, Melessos, Kirkagatsch, Axar, and Demirdji. The production of carpets in Asia Minor is essentially a house industry and the natives are exceedingly skilful in their handiwork. The industry gives employment and a livelihood to thousands of needy people, especially women, who are obliged to do the work almost entirely, while the men spend their time in the coffee houses drinking strong coffee and smoking numberless cigarettes, all in true Oriental fashion. Little girls are compelled to take up the work early, at 7 or 10 years of age at the latest, and they keep at it unceasingly until they go to their graves.

POWER LOOMS MEET WITH INDIFFERENT SUCCESS.

Some efforts have been recently made to introduce the carpet factory system into Smyrna, which has been attended with indifferent success. Labor is dearer in Smyrna than it is in the country districts, and the girls and women must pay more for food and lodging in this city than in the country villages. Many claim that the work done on the looms at Smyrna is more exact in measurement and neater in appearance, for the reason that the manufacturer or merchant is able to superintend the operations at any time of the day, thus preventing mistakes which might prove fatal to some beautiful design. The looms set up in Smyrna and operated by some 60 girls, number 20. On the whole the experiment does not seem to be a success, and the number is not increasing.

Uschak carpets are made in two styles. They are made either of spun wool or long wool, those of the former costing from 98 cents to \$1.63 per square yard, the latter, \$2.45 to \$4.90, according to the design and color and the size of the carpet. The web and the woof of the Uschak carpets are made of the wool of the fat-tailed sheep. The men wash this wool in the rivers and the women comb and twist it softly in such a way as to allow the threads of different colors to lightly blend on the edges in the same way as the different tones on a picture.

The market for the wools which have been thus spun and colored ready for the carpet weavers is held every Thursday from dawn to sunset in the bazaar of Uschak, which is then filled with purchasers who have arrived on buffaloes, camels, donkeys, and other picturesque beasts of burden. The spun wools are not dyed by the weavers themselves, but by special dyers. For a short time artificial dyes were

used, but their use was soon abandoned in favor of the better taste displayed by the amateurs of oriental carpets who desired the ancient models and colors, thus reviving the use of vegetable colors extracted from madder, yellow berry, and valonia, and other products of the country, and from indigo brought hence by caravans.

WEAVING METHODS AND WAGES.

More than 3,000 female weavers are employed at Uschak in the preparation of carpets. The looms are set up in about 1,000 houses. The operators in each house are generally members of the same family, but there are a number of girls who earn about 6 to 7 cents per day. The Ghiardis carpets are generally smaller than those of Uschak. Very fine prayer carpets, closely woven and of harmonious colors, are produced in imitation of the Persian carpets. The dimensions of these carpets average 5 to 7 feet by 3 feet 10 inches. The weavers of Koule and Ghiardis use wool of a superior quality to that of the Uschak weavers for the woof, while the web is made of hemp. Large carpets as well as prayer rugs are made in Koule.

In the village of Demirdji the carpet industry was for some time neglected, but ancient oriental models having again come into fashion the industry has improved and the district now produces a very fine carpet, thick and closely woven, soft and very strong. The web, like that of the Persian and Ghiardis article, is of cotton.

It is estimated that the three centers of carpet manufacture of Ghiardis, Koule, and Demirdji produce more carpets than the Uschak center. Their prices are also a little higher for they sell at not less than \$3.26 to \$4.90 the square yard, the superior qualities at from \$9.78 to \$16.30 per yard, and for certain old carpets, which have become very rare, the prices are exorbitant.

The annual production of these carpets is estimated at 440,484 square yards, worth \$1,347,960.

The carpets are made into bales of 280 pounds each and covered with goatskins. The caravans pass the night in the open country at the foot of some hill, the drivers under tents and the camels and their loads in the open air. Very large carpets, too heavy to be packed, are folded and thrown across the backs of the camels in the form of a covering. When the carpets arrive in Smyrna they are spread out, beaten, broomed and re-packed in bales weighing 500 to 600 pounds each for exportation to the various countries of the world.

SCOTLAND'S LINEN TRADE.

DUNFERMLINE'S PROSPEROUS INDUSTRY—WAGES PAID IN FACTORIES.

In reviewing the business of the Dunfermline district of Scotland, Consul J. N. McCunn describes the progress made in the linen industry, upon which the prosperity of the district largely depends. He writes:

The year of 1906 opened fairly well and buyers operated more freely than during the closing months of 1905, and as spring advanced looms that during the winter had been operated on short hours resumed their full time. An advance in price of manufactured goods, necessitated by repeated advances in the price of yarns, for a time checked the demand and somewhat depressed the state of the

market. This resulted in establishing prices at a moderate advance, and a large export business was done in the fall months. The home market remained quiet, however, buyers operating just enough to satisfy immediate requirements. The raw material used in weaving damask tablecloths and napkins is flax and tow yarns, wet and dry spun. The dry-spun yarns are produced in Scotland and France, and the wet-spun yarns are products of Ireland, Belgium, Austria, Bohemia, and France. The price of yarns has steadily advanced during the year in an unprecedented manner, with the result that yarns at present are abnormally high. The year closed with the demand far in excess of supply. This is not owing to a shortage of flax from which the yarns are spun, as flax is plentiful and can be bought at last year's prices, but, owing to the fact of spindles being short, many of the mills are sold up to 1908, and some are quoting only for 1908.

THE SPINNING INDUSTRY.

The spinning industry for many years was unprofitable and resulted in the breaking up of mills, which reduced the number of spindles at the disposal of the trade which for a time amply supplied the needs of linen manufacturers. The depressed state of the spinning trade has been revived to one of great activity through an extraordinary demand, largely from the United States, for various plain cloths and dress materials. Spinners on the Continent and in Britain soon turned their attention to meet the demand of manufacturers of these fabrics, who, doing a profitable business, were able to pay high prices for yarns, while, on the contrary, the manufacturers of damask cloths and napkins in this district find it difficult to dispose of their manufactured goods at the advance in price forced by high-priced yarns, particularly the better qualities. In brief, the advance has been freely obtained on plain cloths and dress material, while the damask material is left in a depressed condition owing to the extraordinary state of the yarn market.

The materials and furnishings of foreign make used in Dunfermline linen factories are: Yarns, both dry and wet spun; pirns, on which the yarn is wound; jacquard machines; belting and belt laces; steam pumps; pulleys; bolts, nuts, screws, and screw nails; brads and nails; glue; drills and other mechanics' tools; lap-house scissors; brooms and bannisters; tape lines; and American shook boxes, hooped with German hoops and clasped with American clasps.

AVERAGE WEEKLY WAGES.

The average scale of wages paid per week of fifty-five hours to the various classes of employees in a Dunfermline linen factory is given in the following table:

Female:		Male:	
Winders.....	\$4. 56	Card-room hands....	\$4. 38 to \$7. 79
Weavers.....	2. 92 to 5. 36	Lappers.....	6. 33 to 8. 28
Sweepers.....	2. 92	Joiners.....	7. 79
Drawers.....	4. 38	Mechanics.....	7. 30 to 8. 27
Warpers.....	4. 38	Mounters.....	5. 84 to 7. 30
Tyers.....	4. 38	Tenters.....	7. 30 to 7. 79
Pickers.....	2. 92	Packers.....	5. 86 to 5. 84
Card-room hands.....	2. 92 to 4. 38		

Weavers, winders, dressers, and warpers working by the piece often earn more than the sums above named.

MANUFACTURE OF CHIFFON.

EFFORTS TO INTRODUCE THE MOST DELICATE WEAVING.

Consul F. W. Mahin, of Nottingham, sends the following report on a new British textile movement:

Nottingham and other parts of Great Britain have long been large buyers and consumers of chiffon, which has become an almost indispensable adjunct to various articles of feminine apparel. Every yard has of necessity been imported. It is said that chiffon has hitherto been manufactured solely in the French district of Lyon. It is estimated that last year fully 20,000,000 yards were imported into England.

As so much chiffon was used in Nottingham by "makers-up," about twenty years ago a deputation of interested persons went to Lyon to investigate its manufacture and report on the possibility of establishing looms in this city. The verdict was "impossible," on the assumption that the local atmosphere was unsuitable for such delicate work. That is now considered a fallacy. Accordingly a machine was recently set up in Nottingham and is now making chiffon—to all appearances with complete success.

Besides the atmospheric fallacy, another difficulty stood in the way. For the finishing and dressing, after the chiffon came from the loom, there was no machinery outside of Lyon capable of treating such flimsy material. But this obstacle has also been removed. An extensive plant, imported from France, has been laid down by a large local lace firm, and finishing and dressing are now being performed with apparently complete success.

High hopes are expressed touching the new industry. No reason is apparent why chiffon should not be produced as cheaply here as elsewhere, and consequently the local product would control the great British market. Tariff preferences with Canada and other colonies would, besides, give the British product a paramount advantage in those countries. Altogether, the chiffon industry in Nottingham begins under most auspicious conditions.

GERMAN DRESS GOODS.

GROWTH OF AMERICAN SHIPMENTS—NEW STYLES.

Consul George A. Bucklin, jr., in reporting that the exportation of dress goods from the Glauchau district of Germany to the United States during the last calendar year amounted to \$534,364, shows that there has been a rapid increase during the last few years. He says:

The amount in 1905 was \$457,840, and in 1904, \$221,687. This great increase seems to be largely local in nature, due to changes in fashions which have made popular the kinds of goods manufactured here. The city of Glauchau excels in fancy silk and wool ladies' dress goods, the best of which are made on hand looms. Hence, low wages,

together with the present demand for embroidered and broché patterns, are particularly favorable to industry in this section. For the spring exportations the most popular goods seem to be suitings of fine silk-and-wool qualities, voiles plain and fancy, tartans, and, though limited in quantity, embroidered eolienne. There continues also to be demand for henriettas. For the coming fall trade some of the more popular lines will be dark plaids, cameo suitings, ladies' cloth, Scotch plaids, and fancy suitings.

Artificial silk, or Kunstseide, as it is called, is appearing quite prominently in the fancy voiles and embroidered goods, which, on account of its greater brilliancy, brings out the design better than the natural silk. However, the amount used is relatively small, the proportion running about 5 per cent artificial silk to 75 per cent wool and 20 per cent silk. For the making of fancy voiles having the appearance of being embroidered, artificial silk is used for the design, and the weave known as broché is employed. This makes the production of the goods cheaper, since the design is made at the time of weaving and not by a separate process, as in the case of embroidered goods. A weave known as "dreher" is also used, which, by reason of a twisting of the threads while weaving, makes a pretty ribbed effect in the pattern. The arrangement of colors in narrow stripes seems to be growing in popularity, especially in fancy voiles and ladies' cloth. Voiles, while predominantly black, are also made in black and white stripe, white, brown, and odd patterns of a number of colors together. Embroidery designs usually appear on voiles of one color, either black or white.

EGYPTIAN HOSIERY TRADE.

SUPPLIED BY GERMANY, FRANCE, ITALY, AND GREAT BRITAIN.

The hosiery trade of Egypt is described at length by the Journal of the British Chamber of Commerce of Egypt, from which the following is learned:

The total importation of hosiery, including knit underwear, in 1902 was valued at \$566,220, increasing steadily year by year, and amounting to \$771,960 in 1905. German goods head the list, and advanced from \$158,215 in 1902 to \$254,405 in 1905. French sales advanced from \$118,100 in 1902 to \$199,725 in 1905, Italian from \$91,590 to \$127,700, and British from \$36,100 to \$86,990, while Austro-Hungarian sales decreased from \$141,225 to \$86,545, Swiss shipments dropped from \$6,290 to \$4,690, and Spanish from \$8,460 to \$3,160.

Germany's predominance in the trade is undoubtedly due to the fact that she caters for the masses, the result being that she produces a low-grade article which is sold at a very cheap price. Germans are also liberal with terms, allowing 5 per cent to the agent and 5 per cent for cash within thirty days or even longer. Black is the principal color for women's stockings, while openwork wear is also much in favor. In socks for men those having horizontal or vertical stripes are the ones most in demand. Colored socks also find a market. One essential feature is that the colors should stand well.

PROPER FOLDING OF PIECE GOODS.

In his annual address to the members of the British Chamber of Commerce of Egypt, the president, Mr. H. P. Kingham, expressed regret that the Chamber had not been able "to secure the proper folding of piece goods." He said: "As you are aware, piece goods are now folded to represent yards or meters, but the folding is frequently misleading, and injury is done to honest firms who fold exactly to measure. However, the difficulties of dealing with the matter were found to be insuperable." Commenting on this the Manchester Guardian states:

The subject seems to be a difficult one. It appears that piece goods are frequently sent from Manchester that are folded neither in yards nor in meters. Certainly the Manchester merchant's customer is not deceived, and the formal defense of the custom is that various widths of the lap are convenient to the ultimate consumers. Certainly it is incredible that these should continue to take a width of 33 inches believing it to be 36 inches.

AUSTRALIAN WOOL SALES.

RECORD SHIPMENTS TO THE UNITED STATES—LATE SEASON.

The close of the Australian wool sales for 1906 enables Consul-General John P. Bray, of Melbourne, to present the following table, showing in bales, the total sales in Australia from July 1, 1906, to the end of the year, compared with those of the previous year:

	1905.		1906.	
	Offered.	Sold.	Offered.	Sold.
Victoria.....	340,453	309,875	297,969	285,063
Sydney.....	443,455	428,797	368,621	368,270
Adelaide.....	90,024	83,384	109,359	102,900
Brisbane.....	44,175	40,627	53,007	47,916
Total	918,107	862,683	828,956	804,149

The decrease in sales is thus about 60,000 bales, as compared with the sales to the end of 1905. But this decrease is only temporary, owing to the lateness of the season. The following is an estimate compiled from authentic sources of the number of bales likely to be offered in the different markets in January and February: Melbourne, 100,000; Geelong, 22,000; Sydney, 262,000; Adelaide, 1,000, and Brisbane, 15,000. Adding together the quantities already sold in Australia, and the 400,000 bales expected to be offered, the total is 1,200,000 bales. This compares with 1,095,000 bales sold up to the end of February, 1906, the probable increase in the sales for this season being thus 105,000 bales.

The exports to the United States, which already are nearly 20,000 bales more than last year, promise to constitute a record this season. Already there has been invoiced at the consulates at Melbourne, Sydney, and Adelaide, 53,181, 13,066, and 1,036 bales, respectively, making, a total of 67,283. As it is anticipated that fully another 15,000 bales will be bought for the United States, the total shipments for the season will amount to over 80,000 bales, and will be far in excess of the shipments of any previous season.

LEATHER TRADE.

FOOTWEAR AND HIDES.

ITALY.

STEADY GROWTH OF THE INDUSTRY.

Special Agent Arthur B. Butman furnishes the following report on the shoe industry in Italy:

The shoe industry of Italy, though comparatively small at the present time, is rapidly gaining in importance under the awakened industrial conditions of the country. The factories number about 100, and are situated in the following localities and towns: In northern Italy, at Milan, Turin, Vigevano, Busto Arsizio, Varese, Verona, Vercelli, Alessandria, and Felizzano; in central Italy, at Ravenna and Bologna, and in southern Italy, at Sicilia, Naples, Campobasso, and Catania. These factories are small and in many instances not fully equipped with modern shoemaking machinery, though such equipment is gradually being accomplished. One firm in Turin produces about 1,000 pairs of shoes per day (Goodyear welt, McKay, and army shoes), this being the largest output of any factory in Italy. The average output of all Italian factories is about 400 per day each. The machine-made shoes are the Goodyear and Blake, or McKay sewn. About 350 pairs per day of hand welts are produced in two factories in Naples.

MACHINERY AND MATERIALS USED.

Hand-sewn work is also carried on in connection with machine work to a very great extent in southern Italy, and to a certain degree in the northern section of the country. With the further introduction of modern shoe-making machinery this class of work will gradually lessen throughout the country, as is already the case in the more advanced North. The principal leathers used in manufacture are, for the better grades of shoes, glazed kid, both black and colors, a good quantity of which is imported from the United States; wax calf, box calf, patent leather, some glazed kid, and horse hide from Germany; and also a smaller quantity of various upper leathers from France and Austria. For the cheaper grades the domestic upper leather is used, and nearly all sole leather is of Italian tanning.

Tanning is carried on extensively (raw hides being imported in large quantities, duty free) in small tanneries situated in various districts, from which the leather is sold to leather merchants who again sell it to the shoe manufacturers. One-third of all the raw hides imported come from Central and South America, and a certain amount is furnished by English possessions in Asia, France, and African countries. The duty on tanned leather is \$5 per quintal. Germany furnishes fully one-half the required amount. Fancy upper leathers are

in great demand. Owing to the customs duty Italian tanners are striving to produce as large a quantity of these as possible for the domestic market.

The following table shows the amounts and values of sole and upper leathers imported into Italy from the United States for the fiscal years 1904, 1905, and 1906:

	1904.	1905.	1906.
Sole leather	\$16,867	\$16,372	\$10,131
Upper, all kinds.....	73,380	68,874	177,066
Total	90,237	85,246	188,197

PRICES AND STYLES OF SHOES.

The retail prices of machine-made shoes vary considerably. The best quality of Goodyear welt (men's shoe) of glacé kid or box calf sells from about 19 to 22 lira per pair (\$3.80 to \$4.40), the price varying somewhat according to the locality and situation of the retail shop as well as the quality of the shoe. A McKay sewn shoe (men's) sells proportionately for from 15 to 18 lira (\$3 to \$3.60). In hand-sewn work two distinct classes are produced: The superior grade bench-made shoe, which commands a high retail price in the large towns, from 40 to 50 lira (\$8 to \$10), and an ordinary cobbler's shoe, retailing at about \$1.30. These latter are especially the product of southern Italy, and are usually made from sheepskin, tanned and dressed in imitation of glacé kid, and welted and hand stitched. Of course material and work are of inferior quality, though the general appearance of the finished shoe is not bad.

The characteristic Italian shape is something of a cross between the French and Swiss shapes; not so neat as the French or so clumsy as the Swiss. In men's shoes especially, the American form is being introduced to a very large extent; in fact, I learn that about one-half of the men's shoes manufactured at present throughout Italy are made over the American bulldog toe last, or a last very similar in shape and known as the American last. In women's goods a last more after the French fashion is usually employed, and for children's wear sandals are largely manufactured. The latter retail from 50 to 75 cents, the former from \$3 to \$3.50 for better grades.

The manufacturers of northern Italy turn out a shoe of exceptionally good appearance, all things considered, though at its best the product is greatly inferior to the American manufactured shoe, which the Italian, as well as every other continental manufacturer with whom I have come in contact during the course of my investigations, attempts to imitate. I do not find, however, the imitation purporting to be "American" so generally advertised here as is true in some European countries.

The importation of boots and shoes into Italy from the United States for the year 1904 aggregated 3,022 pairs, valued at \$4,797, and for 1905, 3,993 pairs, valued at \$6,941. In the same two years the importation of rubbers was 26,973 pairs, valued at \$12,508, and 67,230 pairs, valued at \$35,327, respectively. American rubbers sell in Italy for \$1.50 the pair.

I am sure sales of American shoes might be very largely increased if manufacturers would awaken to the opportunity which Italy offers for their unequalled product. The existence of prosperous industrial conditions, not only in the northern but in other sections of Italy, have already shown an attendant effect upon her population.

PRESENCE OF AMERICAN SHOES.

The city of Milan reminds one of an American town in its "push and go-ahead" commercial atmosphere, and as a natural outcome the people demand in their dress articles of good quality and smart appearance. American shoes are sold in many towns throughout Italy, although there is no exclusively American shoe store in the Kingdom. All the important retail shoe stores in Milan and Genoa are established and maintained by Italian shoe manufacturers, and if American goods are handled by these dealers at all it is but natural to expect that sales of the domestic product should always receive more energetic attention than those of a foreign competitor. The following instances came to my knowledge while in Milan:

A would-be customer on entering one of these manufacturers' retail stores to purchase a pair of shoes exhibited in the window was informed that they were American samples only, and a pair of Italian make of same leather and style, in many ways a very good imitation, were produced. Inquiry developed that the dealer in question intended carrying a line of American shoes later, but meanwhile he had lost no time in manufacturing a like product of his own. It will be interesting to the parties concerned to note the anticipated arrival or nonarrival of the American stock. The samples were those of a well-known Massachusetts shoe manufacturer.

A retail dealer in Genoa handling the American shoes assured me of their growing popularity, and stated that sales of the same in his two stores, one in Genoa, the other in Milan, amounted to about 800 pairs per month. American shoes are sold in Italy at from \$3.30 to \$5.30 for men's and \$2.60 to \$4.85 for women's. Box calf, glazed kid (button and bals), also russets, are desirable, both in men's and women's foot wear, and many oxfords, especially for women's wear, are shown. For the latter the very light shades of tan and gray glazed kid are fashionable, and the windows of the best Italian retail stores invariably make a large showing of women's goods of this description. I have noted canvas goods but seldom.

The customs duty on shoes entering Italy is 19.3 cents per pair. Shipments for northern Italy should be sent via Genoa. Personal representation is the present necessary requisite for extension of this trade.

COST OF FINDINGS.

Regarding shoe findings and cost of Italian manufacture: All findings (shanks, counters, heels, inner soles, etc.) are made by the shoe manufacturer at the factory. Under the present conditions I do not think the market affords any opportunity in this line for the American exporter. As modern shoemaking machinery and methods are gradually installed a market might be developed. Owing to the old-fashioned methods by which the cost of production is reckoned in this country—on an altogether different basis and in quite a differ-

ent manner to the one employed in our own country—it has been impossible to secure an intelligible detailed cost of manufacture. However, I ascertained that the average cost of labor for producing a man's shoe (such as retail in the United States for \$3 or \$3.50), exclusive of the uppers—that is, bottoming, the shoe starting from the lasting—including treeing and packing, amounts to 78 centesimi per pair, about 15 cents.

TURKEY.

SOURCES AND CLASSES OF SUPPLY—SUBSIDIARY GOODS.

Consul-General Edward H. Ozmun, of Constantinople, furnishes the following translation of extracts from the French Chamber of Commerce Bulletin published in the Ottoman capital:

Sole leather is imported into Turkey in rolls. One roll consists of half the hide of an ox cut in the center lengthwise. The weight of the current article averages 15 to 17 pounds. The estimated importation at Constantinople is 40,000 rolls. Of this total 45 per cent is imported from France, 30 per cent from Belgium, 20 per cent from Hungary, and 5 per cent from Italy.

Previous to the introduction of box calf in this market the sale of glazed calf reached 3,500 dozen per annum. This has now fallen to about 800 dozen, of which 300 dozen are for transit trade. This article comes almost entirely from France. The sale is principally in heavy skins, the weights varying between 40 and 66 pounds per dozen. The demand is mostly for second and third qualities. The sales of box calf amount to about 3,500 dozen per annum. It is stated that America formerly supplied the whole of this quality, but that the Germans engaged American foremen in their tanneries who have worked with such success that they have ousted the American product, the importation of which is said to have entirely ceased.

The sales of colored calf, which amounted to 500 dozen, has now been partly replaced by the colored grain calf and colored glazed kid, and are now reduced to about 200 dozen, coming almost entirely from France.

The sales of colored grain calf are limited to about 100 dozen a year, coming mostly from Germany and only a small quantity from America. For colored footwear the glazed colored kid is being used more and more, being lighter, which in this country is a much-appreciated quality.

The natives have a fondness for patent-leather shoes. Turkish officials use it entirely for a light overshoe, which replaces the rubber overshoe; this overshoe is slipped off when entering a mosque or an official department, or when visiting. The sales amount to about 3,500 dozen, nine-tenths of which comes from Germany, principally from Worms and Weinheim.

At one time all the shoes worn with rubbers or patent-leather overshoes were made of dull kid. The sales were 7,000 dozen a year. Since the introduction of glazed kid, these sales are reduced to about 2,500 dozen. Marseille has the monopoly of the market in this article. These kids are heavily charged with grease, and weigh from 7 to 44 pounds per dozen. The lightest weights, 7 to 9 pounds, are used for ladies' shoes, being cheaper than the glazed kid.

KIDS AND COWHIDES.

Sales of shagreen (rough kid) amount to 200 dozen a year, imported entirely from Germany. Dressed kid, called chamols, replaces the glazed kid when the price of the shoe will not permit the use of the latter. The sales amount to about 2,500 dozen a year. The sales of plain colored kid amount to about 500 dozen a year, of which one-fourth are imported from Marseille, the remainder from Germany.

In regard to varnished cowhides, the local custom-house appraisers, accustomed to the small animals of this country, of which the largest do not exceed 6½ hundredweight in weight, named them camel hides, and the name remains in the local market to this day; 1,200 hides are imported yearly, of which one-half come from France and the remainder from Germany. The French hides, however, are somewhat smaller and generally preferred.

The sales of taved calf, or mégissés, which at one time reached 2,000 dozen yearly, have dropped to almost nil, having been replaced by chrome-tanned

kid. The sales of glazed kid, chrome tanned, has increased steadily in late years, to the detriment of tawed calf (mégissés), plain kid, and even glazed calf. America dominates the market in black glazed kid in virtue of its magnificent assortment. Certain American houses pride themselves on being able to offer 160 different kinds of glazed kid for quality, strength, and size. Three-quarters of the black glazed kid is imported from America, the remainder almost entirely from France, and very little from Germany. The colored glazed kid is imported mostly from France, a little from Germany, and even less from the United States. The sizes vary from 3 to 8 square feet. The total sales reach about 5,000 dozen a year.

The sales of varnished sheepskin are about 1,000 dozen yearly. It is used locally for a cheap shoe, and especially for children's shoes, and is imported entirely from France. Of white tawed sheepskin, or mégis, the sales are about 100 dozen, and it is used for babies' shoes. Spotted hairy calf is a French specialty and is used for making slippers. The total imports do not exceed about 300 dozen. Split hides are imported exclusively from America, via Liverpool, in packets of 62 to 75 pounds, containing 14, 20, 25, or 30 split hides. The lighter the hides are in weight the higher the price, which varies from \$1.06 to \$1.28 per pound. The sales amount to 20 to 25 tons per annum. Quite a large quantity of this, however, is intended for southern Bulgaria. About 400 varnished split hides are imported from Germany and used for carriage mud guards. The sizes are from 3 to 4 meters square.

LEATHER FOR HARNESS—SOLE LEATHER CUTTINGS.

The black leather for harness is mostly furnished by local tanneries; of the remainder, one-quarter is imported from England and three-quarters from Germany.

During the last eight or ten years large quantities of cuttings of sole leather have been imported, coming from the large shoe factories in Europe. They are found suitable in this country for building heels. Shoes being made by hand, the shoemaker does piecework, and time is a minor consideration. The annual importation of these cuttings amounts to above 100 tons and the price varies from 2 to 8 cents a kilogram ($4\frac{1}{2}$ to $17\frac{1}{2}$ cents per pound). Germany furnishes the greater quantity, England but a small quantity. In reference to the local tannery the products have much improved on account of more careful work and the use of modern methods. The tannery prepares the hides of oxen, cows, and buffaloes of local slaughter and imports raw hides. It also tans skins, and while these will not bear comparison with the imported article, their cheaper cost enables them to be used with profit in the making of cheap shoes.

The consumption of buffalo hides tanned red and white, camel hides, and light skins of 7 to 9 pounds per roll, coming from Smyrna, Samos, Chios, Mitylin, and Aivall, is considerable. It is estimated to attain three times the quantity imported from abroad. These products are used in the manufacture of cheap foot wear. The raw hides used in the tanneries in the archipelago are imported from China, Indo-China, India, and Egypt via Havre, Antwerp, and Hamburg.

SIDE LINES AND SHOEMAKERS' REQUISITES.

Sales of elastic tissues diminished owing to the fashion for elastic sides having been superseded; imports from France, Italy, Austria, and Switzerland. Of linen and cotton linings 10,000 pieces of 20 yards each are imported, coming almost entirely from England. Of shoemakers' thread \$19,000 worth is imported, principally from Italy and a small quantity from Belgium and England. Straps are imported from Germany; they are made with the shoemaker's name inwoven. Lasts are made locally, while a few are imported from Austria. Eyelets and buttons come from France. Laces are imported from Germany. Felt is imported from Germany for certain shoes and slippers. Cork soles are little used. Iron heels are used for the laboring classes and the army and are imported from Birmingham and a small quantity from Austria.

The dealers in skins in Constantinople are considered by the French Chamber of Commerce to be very reliable. [A list of these is furnished by the consul-general to the Bureau of Manufactures.] It is nevertheless to be recommended in opening relations to require satisfactory references. All letters should be marked "Via London open mail." A New York house has a branch in Constantinople.

BRAZIL.

GROWTH OF TRADE IN SHOES AND SHOEMAKING MACHINERY.

Consul-General G. E. Anderson, of Rio de Janeiro, reports that the boot, shoe, and leather trade of Brazil needs attention from American manufacturers. He reviews the situation thus:

The record of 1906 has not been fully satisfactory to American interests, although there was improvement over other years. The sales growth in American shoes has been steady, while that in American leather has been sporadic. American manufacturers of leather have shown an interest in this field, with the result that they have enjoyed a more satisfactory trade. There has been a great increase in the imports of shoemaking machinery, which measures the development of Brazil's shoemaking industry along modern lines and promises much for American leather if not for American shoes.

Until recently the mass of Brazil's population has used for foot wear the south Europe "tomongas," or several varieties of cheap loose slippers made from a piece of wood, which forms heel, sole, and body, with a top which is little more than a strap of leather, cloth, paper, etc. These slippers are cheap, of little value in cold weather, and indeed would not be accepted anywhere if the people could afford anything else. Until recently it has been impossible to secure better foot wear in Brazil at a price which would bring the goods within the reach of the mass of the people for more than dress occasions. Shoes heretofore have been made in Brazil by the old-time shoemaker by hand, of whatever leather might be had and upon old models. For most of Brazil this is still the case.

BOOT AND SHOE DEVELOPMENTS IN BRAZIL.

In many instances the small shops have been developed into large factories. There has been some development of the labor-saving idea in these, but the work has been done by hand with indifferent lasts and models. In the meanwhile heavy import duties have shut out foreign goods except for the wealthy, and labor and other troubles have combined to hold back unduly the development of the business. In the past year or two there has been considerable restlessness in the business, and the recurrence of strikes and lockouts among the large number of workman employed in the shoemaking industries of the country have aided to force a change. In spite of high duties there has been a gradual introduction of American foot wear, and this has led to a change from the long, pointed, thin-soled shoes common to south Europe to the broader and more substantial forms. The result has been a notable change in the business of shoe manufacture and shoe selling. In São Paulo the factories have mostly been modernized by American machinery. The change in Rio de Janeiro is also in progress. The entire character of shoe styles now offered the Brazilian public has changed and the dominance of the American styles is becoming more and more pronounced. There are few places in Brazil where American shoes, especially those for men, are not regarded as the best. Their use has been very largely one of price, as the customs and other expenses have

kept foreign shoes under disadvantages. The total imports for two years were as follows:

Country.	1904.	1905.	Country.	1904.	1905.
United States.....	\$31,848	\$64,213	Other countries.....	\$23,633	\$14,262
Austria-Hungary.....	67,257	55,980	Total.....	197,657	188,081
France.....	25,661	20,276			
Great Britain.....	49,258	33,300			

[The declared exports of boots and shoes to Brazil from the United States during the past two calendar years were as follows: For 1905, 26,024 pairs, valued at \$63,836, and for 1906, 36,695 pairs, valued at \$96,705.—B. of M.]

An American shoe which retails at home for \$3.50 will retail here at present exchange for \$7.75, yet it is doubtful if the dealer here makes any greater profit than the dealer in the United States. Foot wear to be suited to large consumption in this market must cost less than American goods cost here at the present time. Doubtless the introduction of American machinery will cheapen the cost of shoe manufacture so much that there will be a far more general use of up-to-date foot wear, and the demand for all sorts of shoes will be immensely increased in Brazil in the course of a short time. This demand is already felt. While there has been comparatively slight increase in population of a sort to represent much consuming power, there has been a vast increase in the output of Brazilian shoe factories, which is reflected to a greater or less extent in the increased imports of leathers suitable for shoemaking, and at the same time there has been an increase in the output of Brazilian leathers.

LEATHER IMPORTS.

The Brazilian customs returns give the imports of hides and skins, tanned or otherwise prepared, for two years as follows:

Country.	Kilos.		Value.	
	1904.	1905.	1904.	1905.
United States.....	63,170	61,490	\$126,143	\$185,614
Germany.....	149,357	160,206	577,961	681,781
France.....	237,568	352,680	768,434	969,115
Great Britain.....	39,426	95,394	109,455	142,622
Other countries.....	70,020	61,623	52,363	53,413
Total.....	659,571	731,298	1,629,346	1,962,545

[No sole leather was exported from the United States to Brazil during the past two calendar years. The exports of upper and other leather, including glazed kid, patent or enameled, splits, buff, grain, etc., amounted in 1904 to \$98,957, in 1905 to \$133,846, and in 1906 to \$166,432.—B. of M.]

That American leather men have an especially good opportunity to introduce their leathers now, however, is unquestionably the case. Other memoranda on this subject have been submitted from this consulate-general before. It is only necessary to say, perhaps, that the demand here is for leathers suitable for a tropical climate—leathers which will resist moisture and yet be light in weight, light in colors, and running to the flashy in appearance; the proportion

of kid leather of the several varieties and grades is high. The French kid-leather manufacturers have an advantage in the market at present.

A DEMAND FOR SHOES OF A SPECIAL KIND.

The fact that the demand for American-style shoes and for the American goods themselves is increasing and revolutionizing the shoe trade of Brazil does not mean that American manufacturers need to give no special attention to manufacturing for the Brazilian market. There is need of this special attention, both in the matter of quality and weight and in the matter of style itself. That Brazilian taste and Brazilian demand have turned toward American models suggests the advisability of American manufactures meeting both halfway. In the first place, the weight of shoe wear in a tropical country is to be considered. Brazilians run to kid leathers and light-weight material generally. Shoes with cloth tops are popular. In short, hot-weather goods are wanted. Heavy-weight goods, even of the most approved style and the best of quality, can hardly be popular here, no matter what the price. The same principle applies in the matter of leathers. In style Brazilian taste would probably take best of all to models not so radically foreign as to forget everything Brazilian. The Brazilian factories which employ American machinery and American lasts do not run to heavy toes or widely extended soles.

Most American shoes now sold in Brazil are distributed through local firms as agents of the American manufacturers, generally under a more or less closely-drawn agreement of exclusive territory within certain limits. Credit terms are generally more liberal than those given dealers in the United States. The pushing of the trade is interfered with considerably by the high duty on advertising material. Newspapers and magazines probably offer the best advertising medium in Brazil at the present time.

EXPORT OF HIDES FROM RIO GRANDE DO SUL.

The export of hides from the port of Rio Grande do Sul for the year 1906 shows a very gratifying increase over the exports of the previous year, being exceeded only by those of 1904, an exceptional year. The exports to the United States during the year were almost double those of 1905, but are still much below the amount taken by the United States during the beginning of the current decade. The number of salted hides exported to Europe in 1896 was 230,719, and of dry hides 110,259, while in 1906 the salted hides numbered 447,719, and the dry hides 385,378. In 1896 no hides were exported to the United States, but in 1901 the dry hides numbered 79,657, and in 1902 the number was 79,420, which number fell to 14,513 in 1905, and 28,000 in 1906. The total exports of all hides in 1896 was 340,978, and in 1906, 861,120, while in 1904, the banner year, they reached 920,738.

The increased exports to the United States seem to be due largely to shipments made in December. During the same month there was a marked increase in the shipments of animal hair to all points, and especially to the United States. The United States now is the heaviest importer of animal hair from Brazil, the United States and Germany together taking three-fourths of the country's exports thereof. Germany continues to take the greater portion of Brazil's

exports of horns, France of its glycerine, Great Britain of its bone ash and fish glue. Brazil's lard and tallow products are practically all consumed at home.

GREAT BRITAIN.

AMERICAN SHOE TRADE FROM A BRITISH VIEW POINT.

Consul-General Robert J. Wynne, of London, furnishes an interesting British view on the subject of American leather and leather products imported by Great Britain, as given by the editor of the *Shoe and Leather Record*, of London, a recognized authority, who writes as follows:

I have watched with considerable interest the efforts made during the past ten years or more by boot manufacturers in the United States to obtain a footing in this country. My present opinion is that they have about reached the limit of their trade. It is a considerable trade and likely to be permanent, but I do not think it can be very much extended. One of the difficulties which the American boot manufacturer has to encounter in the United Kingdom is this: The average retail shoe dealer with only one or two shops relies largely for his supplies upon boot factors, or, as you call them, jobbers; and the average English boot factor is prejudiced against American goods. Furthermore, the factor or jobber likes to deal with manufacturers who are tied up to him in a way that no American boot manufacturer would allow himself to be tied up. The result has been that those American firms who have done the best here have been those who have taken their own shops and dealt direct with the public. This class of trade is difficult to extend, because American shoe shops only seem to prosper in the principal streets of London and just a few large towns, and it is difficult to get good sites at reasonable rentals.

LEATHER AND SHOEMAKING MACHINERY ENTERED FREE OF DUTY.

Another consideration which must not be overlooked is this: Our ports are open to receive American leather and American shoemaking machinery free of duty. The operation of the drawback system enables the British boot manufacturer to buy hemlock sole leather at absolutely lower prices than it can be purchased for in the United States; while an American shoe machinery company has an affiliated organization here, which puts out the most improved American machinery in this country on terms at least as good as those given to the manufacturers of the United States, for there is more effective competition in the shoe machinery business here than with you.

American experts are at the disposal of any manufacturer who cares to use American machinery thus obtained, and the British boot manufacturer has been educated during the past ten years to make shoes quite as well as they can be made anywhere in the world. Wages here are lower than in America, counted by weekly earnings. A few years ago the labor unions so restricted the use of American machinery that notwithstanding the low weekly wages, the cost of production per dozen was higher in England than in the United States. This, however, is not now the case, and labor costs are now quite as low, or lower, here than with you. It follows from these observations that the American trade in boots and shoes must be limited in the future to what may be termed a fashion trade. That is to say, some people will always prefer American shoes, just as some Americans prefer British goods. The economic position, however, does not give the American boot manufacturer any advantage in this market, but rather the contrary.

AMERICA'S TANNING ADVANTAGES.

Turning to the leather trade, the position is somewhat different. America is a cattle-raising country with large stores of native tanning material. In this country we have very little native tanning material, and we do not raise enough cattle for our requirements. We must therefore import hides and tanning material either separately or combined in the form of leather. And

It seems more natural to import tanned leather. This applies to any kind of leather made from the hides of full-grown cattle.

As to the leather made from goatskin, the chrome tanning process was perfected in the United States, and the English leather dressers have hardly reached the American standard of manufacture. They will probably do so in future, but in the meantime we are likely to continue to draw large quantities of chrome-glaze kid from the United States.

Concerning chrome calfskin leather, the best raw skins come from the continent of Europe, the French and Germans being large veal eaters. The British manufacturers of what is known as box calf draw their supplies of fine skins from the Continent, and can compete quite favorably with the American producers of like material. As to the sole and heavy upper leathers, the demand for these will always be larger than the home supply, and the American tanner may rely upon a permanent outlet here for his surplus products. But in regard to chrome-tanned leathers, the outlook is less certain, though a circumstance which helps the American producer of any kind of leather is this: There are a considerable number of wealthy British merchants who have for years been engaged in the import of American leather and its distribution to British bootmakers, and it suits them better to use their capital to develop the sale of American leather in this country than to encourage the British leather manufacturer. The latter, being on the spot, naturally tries to deal over the merchant's head when opportunity offers. The American tanner can not do this so easily. Hence the importer prefers to handle the goods of the American rather than place his capital at the disposal of the home producer, and the development of trade is always very largely a question of finance.

GERMANY.

STUTTGART HAS EVIDENTLY BEEN OVERLOOKED BY MANUFACTURERS.

Consul Henry H. Morgan believes that there is a very good market for American shoes in the Kingdom of Wurttemberg, concerning which he writes from Stuttgart:

Up to the present time no serious effort has been made by our manufacturers of shoes to get any portion of the trade which could be theirs with but very little exertion. They should send into the country drummers speaking fluently the German language, bringing with them a large line of samples. Even catalogues, if they are in the German language, would do some good. There is only one shoe dealer in Stuttgart, as far as I have been able to ascertain, who handles American-made shoes, and this house only in a half-hearted way. He makes no display of his goods in his shop window and his assortment is very limited. I doubt if there are any other dealers in American shoes in the Kingdom. In almost every other city of the German Empire American shoes are finding a ready sale. I can only account for no sales being made to the possible fact that this market has been entirely overlooked.

The retail price of American shoes sold here by some distributing houses in Hamburg ranges from 15 to 20 marks a pair (\$3.75 to \$5). The buyers, I am reliably informed, are confined wholly to the foreign residents of Stuttgart, but these comprise only a very small portion of the population.

It is the history of the American shoe abroad that it has only to be brought into competition with the European article, and to the attention of those desiring a shoe which is durable and at the same time stylish, to find ready purchasers. It is my opinion that our shoe manufacturers would do a business in Wurttemberg of \$50,000 per annum if my suggestions are acted upon.

JAPAN.

IMITATION ARTICLE WILL FIND MANY USES IN TRADE.

Consul-General H. B. Miller, of Yokohama, reports that the promoters of the Japan Imitation Leather Company, of Tokyo, recently bought the business of the Tokyo Imitation Leather Manufacturing Company, and have fixed the capital of the new undertaking at \$250,000, the business advantages being as follows:

The imitation leather turned out by the company can be sold, quality for quality, at a quarter of the price of genuine imported leather, and it is claimed for appearance and durability it is in no wise inferior to the genuine article. It is anticipated that a larger market for the articles will be found in America and Asia. This is one line of manufacture that seems well adapted to the country in every way, and will, no doubt, have a successful future. So many cheap, light, and attractive articles can be made in Japan out of this imitation leather, both for home use and for export, that the demand for the product will be very heavy. Cheapness, neatness, and artistic appearances are prime essentials for a great variety of things used in the Orient, and imitation leather will furnish a material out of which many articles of common use will be made.

GOOD MARKET FOR LEATHER BELTING.

In replying to a communication from a Boston leather company, Consul Hunter Sharp, of Kobe, supplies the further information:

There are very few rice mills in this consular district run by machinery, most of them being small mills run by water power. The owner of the largest mill informs me that they use rope on the large driving wheel and cotton webbing on the small wheels, from shaft to elevator. There are many cotton and other mills in this district which use belting, and although the Japanese manufacture this themselves, they also import considerable quantities of belting and hose for machinery. Kobe alone imported, in 1906, \$63,396 worth, the United States furnishing only \$6,614, while Germany sent these goods to the value of \$32,868, and Great Britain \$23,833. In cow, calf, and ox leather the United States furnished \$13,056 worth out of a total importation of \$43,115; of sheep and goat leather \$4,021 out of \$171,600; and of other leather \$53,368 out of \$86,879.

EGYPT.

BOOT AND SHOE ACCESSORIES.

Regarding boot and shoe accessories in Egypt the French Chamber of Commerce at Alexandria states that the imports of such articles are increasing. Blacking, polish, and varnish find ready sale, especially brown and white pastes, as light-colored shoes are largely worn, blacking being in less demand. The best qualities come from France, the United States, and the United Kingdom; the cheaper qualities from Germany, Greece, and Austria. The inferior qualities command a large sale, owing to their use by bootblacks, who are very numerous in Egypt. Prices vary between 40 and 60 francs (\$7.72 and \$11.58) per gross. Two French brands of varnish are sold at most of the boot shops; hardly any other brands are to be found in the country.

MACHINERY.

FARM IMPLEMENTS.

SAXONY.

MARKET FOR AMERICAN AGRICULTURAL IMPLEMENTS.

Consul Thomas H. Norton, of Chemnitz, reports, with regard to the prospects for the sale of farming implements in Saxony, that no other portion of the German Empire offers such advantageous conditions, or shows a keener determination to develop the possibilities of agriculture. The consul continues:

The climate and soil are both peculiarly favorable for intensive agriculture, and remarkable advances have been made during the past few years. Thus, during the five years, 1881-1885, the crops of Saxony had an average annual value of \$35,000,000. This average value in the five years 1900-1904 was \$44,000,000. The manufacturing interests and the manufacturing population of Saxony increase so rapidly that the value of the agricultural products is but one-eighth of the total income of the nation.

As to the opportunity for introducing the sale of American agricultural machinery in this region, there is unquestionably a good field. The ordinary farming population is intelligent and appreciative of labor-saving devices. The large landed proprietors are also progressive and enlightened. The implements in vogue are, as a rule, heavier and clumsier than those employed by the American farmer for the same purposes. Half a century ago the American light, but somewhat more delicately constructed, agricultural machinery would have been out of place in a Saxon village community, on account of the difficulty of commanding a sufficient degree of intelligence and dexterity for necessary repairs. This is no longer the case.

In attempting to secure a foothold here for modern forms of farming implements it is useless to enter upon a campaign with catalogues, price lists, etc., no matter whether in English or German. A bright, live American agent, well conversant with the language, should make an intelligent study of local conditions, and then enter upon his campaign with a sufficient stock of each type of machine to fill orders without delay. Too much attention can not be paid to making the most careful provision for repairs and for replace parts. An agent should not be content with establishing a central place of sale, but must journey about and present the desirability of his wares to the prominent landowners and the stewards of their estates, and watch the annual dates of the fairs in each town, large and small. The duty on agricultural machinery under the new German tariff is 10 marks per 100 kilograms or \$1.08 per 100 pounds.

LARGE EXPORT TRADE—SHIPMENTS FROM UNITED STATES.

It is to a certain degree the result of the present era of general economic prosperity which leads to the establishment and steady extension of manufacturing industries in many countries hitherto largely, or exclusively, agricultural. It is difficult for German machine works to meet all requirements of the steadily growing home demands and at the same time fill foreign orders. Scores of textile factories in and near Chemnitz could each give work at once to 50 or 100 additional operatives if machines long since ordered were available for immediate delivery. The export of German machines has practically doubled in three years. One-half of all the foreign machinery purchased by Germany three years ago came from the United States, but in 1906 the United States supplied two-thirds of the comparatively small imports. The exports of German machinery to the various countries in metric tons of 2,204 pounds are shown in the following table:

Countries.	1903.	1904.	1905.	1906.
Argentina.....	2,147	3,642	6,932	11,796
Austria-Hungary.....	31,973	40,638	52,741	66,485
Belgium.....	17,489	13,956	17,154	34,311
Denmark.....	3,677	3,207	3,695	6,500
France.....	25,061	24,519	32,016	57,450
Italy.....	18,138	25,067	37,113	78,583
Japan.....	1,332	4,329	4,746	1,911
Netherlands.....	10,634	10,872	8,236	10,037
Roumania.....	1,924	4,904	5,950	3,510
Russia.....	34,367	40,569	51,789	35,679
Spain.....	8,835	15,836	6,563	1,094
Sweden.....	7,925	10,437	9,026	9,992
Switzerland.....	15,085	22,399	27,161	31,539
United Kingdom.....	20,728	14,698	15,127	26,607
Other countries.....	28,055	33,253	52,507	81,915
Total.....	229,675	268,886	330,756	452,409

The imports of machinery into Germany in 1906 amounted to 85,738 metric tons, as against 58,052 tons in 1905, 46,103 tons in 1904, and 27,341 tons in 1903. Of these amounts the United States furnished 57,422 tons in 1906, 36,272 tons in 1905, 23,671 tons in 1904, and 13,341 tons in 1903.

BADEN.

GERMAN MANUFACTURERS STRIVE TO SUPPLY HOME DEMANDS.

Consul H. W. Harris, of Mannheim, reports that within recent years grain drills have come into rapid use in Germany, and have largely superseded hand sowing of grain, but that this trade is quite fully looked after by German factories, though in former years and perhaps now some American drills are sold. The consul continues:

The German implement papers show advertisements of a large number of drill manufacturers. One of these claims a capacity of about 5,000 machines per year built in several types for domestic as well as export trade. Another concern claims to have already delivered more than 5,000 of its drills. The German drills have the usual attachments for sowing commercial fertilizers and are in appearance quite similar to the American drill. Some of those seen at the fairs are heavier than the common American type. Taking

into account the very rapid development of German agricultural machinery and the existing duties, freight charges, etc., there is not much opportunity to sell American drills in this part of Germany.

American cultivators and harrows are selling in Germany to some extent, chiefly, however, as side lines to harvesting machinery, the sale of which is well organized in many parts of Europe, chiefly through American agents who have selling experience in the United States. These agents find it of value in some instances to furnish the local dealer a somewhat general line of implements even though part of them are sold at little or no profit. In the German implementation papers are to be seen advertisements of all sorts of spring-tooth, disk, and other harrows, with a variety of cultivators. The trade in American tools of this class is not of much value. No other class of manufacturers in the world are making more effort to adapt their wares to the demands of the market than the German manufacturers. With iron and steel as cheap, or a little cheaper, than they are in the United States, with labor considerably cheaper, it goes without saying that in all the ordinary types of unpatented machinery where iron, steel, wood, and labor are the chief elements of cost Germany may fairly hope to hold the domestic market.

In June at Düsseldorf will be held by far the largest agricultural fair on the Continent, which brings together several acres of machinery. From the machinery exhibited at these fairs and the excellent opportunity to confer with American agents, an expert would be able to form some conclusions as to what he could hope to do in this market.

BAVARIA.

KEEN COMPETITION AND SKEPTICAL BUYERS.

Consul-General W. F. Wright, reporting from Munich, says:

The soil hereabouts is not favorable to agricultural pursuits; hence the number of agriculturists is comparatively few. The farming tracts are quite small both in area and production. In the limited tillage old methods are followed, and the peasants are not quick to grasp the advantages of more modern implements. It is possible, however, that American goods might find sale if their introduction were energetically pushed by salesmen familiar with the language, customs, and business conditions and competent to fully demonstrate the superiority of the American implements. I have no faith in the success of any attempts to introduce any line of goods into a foreign market through correspondence or trade literature written or printed in English, no matter how attractive the context or illustrations. Personal effort must be made to produce results, especially with the consumer in this market, where competition is keen and buyers skeptical.

[Consul-General Wright has furnished a Business Directory of Munich, which can be consulted at the Bureau of Manufactures.]

SWITZERLAND.

OPPORTUNITY FOR INCREASING AMERICAN SALES.

Consul George Gifford, writing from Basel, says:

There is an opportunity to establish a moderate business in agricultural machinery in this part of Switzerland and in the con-

tiguous regions of Baden and Alsace in Germany. American mowers, reapers, and rakes have within the last few years been imported in considerable numbers in all these districts, where it was formerly supposed that in consequence of the small holdings of real estate it was impossible that machinery could be profitably employed. There would perhaps be rather less chance for seeders and sowers; but it would no doubt be worth while to undertake the enterprise. For the beginning, it would be absolutely necessary that some member of an American house or some expert representative come personally to Europe prepared to show the merits of the implements. American machinery got its foothold in Switzerland and south Germany as the result of its victories over domestic manufactures in competitive trials on the mowing and harvest fields.

Catalogues, especially in the English language, are of not very much use, even if the consul to whom they are sent is inspired with the best intentions and takes the matter energetically in hand.

FRANCE.

IMPORTANCE OF THE MARKET—AMERICA'S OPPORTUNITY.

Consul-General R. P. Skinner, of Marseille, furnishes some good advice as to how to increase American trade in farm machinery and implements in France. He writes:

While American agricultural implements are regarded with the greatest possible favor in this country, the manufacturers do not offer their wares directly to the consumer, but operate through a few important firms, who already represent not only the best known American concerns, but who sell alongside of American implements such French, German, or other devices as suit their purposes. American newcomers in the field necessarily find these large concerns indisposed to complicate their business by introducing to their customers two kinds of American plows, let us say, merely to confuse the purchaser and split up the importing business. If the implement trade is to be greatly extended, the American firms who do not at present possess any French trade must create in this country selling agencies as reliable and important as the concerns now acting as such, and this can scarcely be done by correspondence. If certain unrepresented American manufacturers producing other forms of agricultural implements would combine in the organization of an American agency for the importation and direct sale to the consumer of their own machines, the capital required would not impose a very great burden upon the constituent members of such a combination, and would enable them to reach the French farmer with an effectiveness entirely beyond their grasp in the actual state of this business.

AMERICAN IMPLEMENTS AT MARSEILLE.

In Marseille there are two chief houses handling American agricultural implements [addresses on file at the Bureau of Manufactures]. One of these firms is likewise established at Paris, Bordeaux, Toulouse, Lille, Amiens, Tunis, Antwerp, Boulogne, Dunkerque, and Havre. The other firm has houses at Paris, Bordeaux, Toulouse, and Tunis. The latter makes a specialty of American machines, selling German machinery in very small quantities, considering it cheaper, but of inferior quality. Yet of eighty different devices which he offers

for sale, only the plows and harvesting and hay-making machinery appear to be American. I have never yet seen a standard American thrashing machine energetically advertised in this country, although a variety of clumsy thrashers of French and British make appear to find increasing sale.

The French market is an important one, and American manufacturers can have a still greater share in it whenever they are disposed to take up the matter in a persistent manner and through their own instrumentalities. By organizing to this end they can not only increase their business in this country, but they can also reach the growing trade of Algeria and Tunis, where agricultural enterprises are often carried on upon a large scale.

[The consul-general sends several illustrations of foreign farm machinery, which will be loaned by the Bureau of Manufactures to American producers of such machinery.]

EXTENT OF IMPORTS INTO THE COUNTRY.

Consul A. Gaulin, of Havre, reporting on the sale of American agricultural implements in France, says:

Large quantities of agricultural machines and implements are shipped annually to France by various American manufacturers, who advertise extensively in this country, and who have exploited, and still exploit, the field with system, method, and perseverance. The sales of such machines could be increased by other firms displaying the same application and persistence. The following table shows the quantities and values of agricultural machines and implements imported into France during the past three years:

	1904.	1905.	1906.
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
Total quantity imported	313, 790	302, 875	302, 876
Quantity remaining in France.....	296, 931	246, 733	233, 091
Value of quantity remaining in France.....	\$6, 303, 766	\$6, 363, 982	\$6, 505, 065

The greater portion of the agricultural machinery and implements imported into France is shipped to Havre, but from this point it is sent, for the most part, by rail to Paris. One of the largest importers and dealers in this country [address obtainable from Bureau of Manufactures] has agents and representatives in all the principal cities and throughout the agricultural districts.

SCOTLAND.

MACHINERY SHOULD BE STRONG FOR HEAVY SOILS.

Consul Rufus Fleming furnishes a report in regard to the prospects for extending the sales of American farming implements in the Edinburgh district. He says:

Several years ago American drills and cultivators were used by many farmers in this part of Scotland, but at present there are few sales of these implements of American manufacture. It is stated by agricultural implement dealers that farmers here found American grain drills and cultivators rather too light for the heavy soils and

deep cultivation in Scotland. In the lowlands and highlands alike both clay and loam soils are hard to work, and as the average farmer plows his land to a depth of 8 to 11 inches the ordinary cultivators and grain drills used in America have not proved satisfactory, as a rule, especially in wet seasons, when the plowed fields are extremely heavy. In order to gain a considerable trade here the American manufacturers of machines for these purposes must adapt them to the requirements of this market by giving extra strength to all parts. The average prices of some of these implements sold in Edinburgh may be of interest: Grain drill, for eleven rows, 6 inches between rows, \$112; seed-sowing machine, for broadcast grain and grass-seed sowing, drawn by one horse and sowing a breadth of 18 feet, \$78; combined steel cultivator and grubber for root crops, \$55. These are prices quoted by dealers to farmers. A moderate discount for cash is allowed. [Names of local dealers in this class of machinery are on file in the Bureau of Manufactures.]

MEXICO.

MECHANICAL APPARATUS SHIPPED FROM DURANGO TO TEXAS.

Consul-General Philip C. Hanna, of Monterey, writes that it will doubtless be of interest to people in the United States to learn that Mexico has begun to export machinery, concerning which the *Torreon Star* says:

Something out of the ordinary took place at Durango a few days ago, when from that city an article manufactured there was sent to Austin, Tex. This is probably the first exportation to the United States of machinery originated and manufactured in Mexico, and may open a new era. A Durango concern recently began the manufacture of middlings mills and nixtamal mills. It is said that the middlings mill is destined to supplant many stands of rolls in flour mills, because, it is claimed, it does the same amount of work with one-fourth of the power, and with the additional advantage that it does work no rolls can do and solves the problem which vexes all millers, that of grinding sharp middlings. It is believed that the invention will become a big factor in the flour-mill industry of the world.

The nixtamal mill is having a big sale. These mills are designed so that each will properly fulfill its own peculiar sphere in the grinding business. With the combination of the two they are said to be unexcelled for grinding food products, such as middlings, nixtamal, spices, malt, cotton-seed meal, salt, sugar, chili, coffee, etc.

An Austin company recently placed an order for some of these mills. The Austin concern produces 20,000 cans of chili con carne and 10,000 cans of tamales every day, and its manager comes to Mexico to purchase from first hand chili and beans. While in Durango he saw the mills mentioned above and gave an order for a shipment to be sent to Austin.

PLOWS AND AGRICULTURAL IMPLEMENTS.

The old-style wooden plow, made of a sharpened stick, which simply stirred up the ground and turned up but little fresh soil, is largely a thing of the past. The rich lands of this country are becoming attractive to practical northern farmers who are accustomed to modern machinery, and the general use of the same has shown the native tillers of the soil their advantages, until now the American plow is in general use, with an ever-increasing demand. A wholesale importer in Monterey received 1,000 American plows in one day recently, and there are several large firms here handling plows and various kinds of farming machinery.

CANADA.

DEMAND FOR DRILLS AND CULTIVATORS.

Consul S. H. Shank reports from Winnipeg that during the past year there has been sold in that Canadian district about 10,000 grain drills, about one-third of which were American made, and about 1,000 cultivators, almost all of which were Canadian-made machines. He adds that there are some five or six American firms already in that market, but the extended development of the country will make a good opening for agricultural implements of all kinds.

EGYPT.

REASONABLE DEMAND FOR IMPLEMENTS.

In reply to a New York inquiry Consul-General L. M. Iddings, of Cairo, advises that there is a reasonable demand in Egypt for farm implements, pumps, contractor's tools, and similar articles. The consul continues:

There are also plenty of houses selling these things. Living at hotels is dear. The preference is to deal directly with the manufacturer. There is no interference with commercial travelers, nor do they require a license. The customs duties are 8 per cent ad valorem and a slight quay tax.

ENGLAND.

BEST METHODS OF INTRODUCING AMERICAN GOODS.

Consul C. N. Daniels, of Sheffield, reports on the possibility of making sales of American implements and machinery in that part of England as follows:

The district of Sheffield is not one devoted to the growing of grain, it being rough, rocky, and hilly, with large areas of unoccupied land consisting of barren moors, given over to grazing by sheep and cattle and used as game preserves. Both to the north, on the flat lands approaching the coast, and in the south considerable portions of the land are used for growing grain crops, generically termed corn, the seed being sown by drills, and little or no broadcasting is done. The class or make of machines used are probably of English manufacture, as there are large firms of agricultural implement makers near by. It would be exceedingly difficult for a new machine, and particularly an American one, to push out the home product and take its place; the English farmer is thoroughly conservative and slow to change his methods and tools. Some of the implements in use here, notably plows, to the American eye appear heavy, awkward, and unwieldy, but the farmers would be slow to exchange for machines they knew nothing about. The superiority of the new machine would have to be demonstrated by actual trial before any sales could be expected.

The only way in which American agricultural implements of established excellence could obtain a footing would be for the manufacturer to put a full line of his goods in the hands of a thoroughly practical man and set him to work to demonstrate by actual use their superiority. Such a campaign would take time, perhaps cost more than was thought it might be worth, but results could not be expected in any other way.

IRELAND.

AMERICAN GOODS HAVE AN EXCELLENT FOOTHOLD.

Consul H. S. Culver, of Cork, has made careful inquiry in regard to the use of American agricultural implements and finds that they are used to a limited extent in the south of Ireland. His report reads:

There are a few mowers and reapers, cultivators, harrows, and plows, and they usually give excellent satisfaction. Of the plows, one prominent farmer expressed the wish that there were more American plows in the country. The cultivator is especially prized by potato raisers and truck farmers who have used them. The Irish people entertain no prejudice against the American goods as such, but they labor under the impression that our implements, vehicles, etc., are too light, and therefore not as durable as their own or the English article. This prejudice might be easily overcome by an exhibition of the workings of the implements and machines, thereby showing the advantages of the lighter make. The domestic implements and vehicles appear heavy and clumsy, their utility, in a great measure, being sacrificed for strength.

It would seem that the cultivation of the fertile hillsides of Ireland might be greatly facilitated by the use of lighter American implements. True, the Irish people are awakening to the idea of purchasing Irish-made goods, yet they realize the supremacy of the United States in everything that pertains to agriculture. Especially do they look to the United States for the latest and most improved agricultural implements. One obstruction to the more extended dealing in American goods is the fact that repairs can not be so readily made nor the parts so readily supplied as they can be to domestic implements. Many object to purchasing American implements and machines for that reason, claiming that they are put to great expense and tedious delays in case of accident. [A list of prominent dealers in agricultural machinery at Cork is filed at the Bureau of Manufactures for American export trade interests.]

LAUNDRIES IN AUSTRIA.

INCREASING DEMAND FOR MODERN MACHINERY.

Consul S. C. McFarland, of Reichenberg, replying to a letter from an American firm in regard to laundry methods and the sale of laundry machinery in Austria, says:

General public water service in northern Bohemia is confined to a few of the larger towns, that in Reichenberg having been installed only three years ago, and even where such service exists it is utilized only by the well-to-do classes, except in recently constructed houses, and then in a curtailed manner as compared with common American usage. Until its installation, although one of the finest public baths in the world is located here, bathrooms in private houses were practically unknown, and even in hotels only a "tin dip" was to be had upon request. Under these conditions the laundry business was primitive, and, to a very great measure, it so remains. Within the

past three or four years laundry concerns have sprung up in response to the modern demand in the larger towns for quicker and more modish work. Excepting these and the private laundry arrangements installed by the wealthy owners of castles and palaces, the Bohemian monthly or bimonthly family wash "goes to the creek," as it has for centuries. The process begins with soaking the clothes over night or longer at the house. Then, in great wooden tubs, they are carried upon the backs of female servants or professional "washfraus" to the chosen creek and rinsed thoroughly. Bleaching on grass is then patiently gone through with for the balance of the day. The next day fires are built under the great copper tubs, with which each dwelling of any standing whatever is provided, where the boiling process is accomplished, the hand washing being done upon a piece of board in a long wooden trough, washing machines, wringers, and even the common washboard being practically unknown. Bluing and starching follow, and then the wash is carried to the garret room provided for the purpose and hung for drying. Ironing follows for days. The conscientious washfrau produces a product sweet, clean, and admirable in all things except perhaps the ironing. But here, as elsewhere, there are the unfaithful, with knowledge of secret ways and modern chemicals. The most noticeable failure of the old system, as of the laundries so far installed, is the apparent inability to do up table linen in even passable form. If such work could now be turned out to compare with that produced by the average American or English laundry, there would be almost no limit to the demand.

INCREASING DEMAND FOR MACHINERY.

Such conditions, with the growth of town population, defilement of streams, and a development of modern ideas, has given impulse to the establishment of laundries. Most of them are small concerns, but they are growing and multiplying rapidly, and the work done, though largely by untrained laundrymen and to a great extent experimental, is improving constantly in grade. The larger concerns are comparatively well equipped with machinery. In nearly all cases the machines are of German manufacture and copies of similar American machines. These are sold at a price from one-fourth to one-third of that asked for genuine American machines. Düsseldorf and Goettingen, in Germany, seem to be headquarters for machine supplies for this section.

VIEWS OF A PROMINENT LAUNDRYMAN.

The proprietor of one laundry here [name obtainable from Bureau of Manufactures], and who is interested in others at different points in Austria and Germany, talked frankly as to the situation as a whole. He has spent some time in America, is familiar with American machines and methods, and is the pioneer laundryman of this section.. He said:

My machines are nearly all after American patterns, but of German make. In one instance I was asked \$1,200 for an American machine. I bought its duplicate at Düsseldorf for \$800. There are a few agents representing American machines on this side, but they generally handle also others of German make and when they exhibit designs to a prospective customer and say "Here are two machines just alike, but the American costs a third more," it is not difficult to guess the customer's choice. The American machines are superior,

however—more perfectly built for their purpose—giving a better and larger product at less operating cost and having all the accessories for quick and fine work. They would be bought, too, even at a little higher figure if they were properly introduced, but I don't understand, allowing for cheap German labor and a short haul, why German machines can be sold so much cheaper. There is no greater laundry field for development among an educated people than right here and I don't think American manufacturers have studied the field or tried to do their best. The next few years will show a wonderful growth, but American machinery will have no chance unless delivery prices are reduced and sales methods changed.

This gentleman, who appears to be active in his branch of business and certainly understands the situation, is now interested in forming an association similar to the German. He stated that he would be very glad to take, upon fair terms, a general agency for American machines, providing full investigation demonstrated the feasibility of competing on anything like even terms with the machines produced here and in Germany. Labor employed in laundries is usually that of women and girls, generally German speaking, the former receiving a maximum weekly wage of from \$2 to \$2.40 and the latter from \$1.60 to \$2. Men, where employed, receive from \$3.20 to \$4, and boys from \$2.80 to \$3.20 per week. [A list of laundries and dealers in laundry machinery in northern Bohemia is on file at the Bureau of Manufactures for use of American export trade.]

OIL ENGINE MARKET.

SOUTH AFRICA OFFERS A GOOD SALES OPENING.

Consul-General Julius G. Lay reports from Cape Town that there is a good demand for oil engines in Cape Colony of the 2 to 6 horsepower type to furnish motive power on farms for pumping water, thrashing and grinding, and cutting tobacco, but he finds the following obstacle to establishing American trade in them:

The old complaint is made against the American custom of demanding cash in New York, holding that home manufacturers should bear some of the risk in establishing a market for oil engines. A Dutch firm handling engines here informs me that they have had splendid success with a small 2-horsepower American oil engine called the "Jack of all trades," that cost about half as much as an English engine of the same power. If other American makers wish to establish a name for their engines, they must not expect to do so with a catalogue. There are not many firms here who have sufficient confidence in our firms to believe every guaranty that appears in a catalogue, so some of the initial cost of properly placing an engine on the market must be borne by the manufacturer, or a few engines sent at first to be sold on consignment.

There is an American mercantile agency here that can give home manufacturers a list of firms that can be given credit until their goods are well known and they are in a position to demand "cash in New York."

SEWING-MACHINE TRADE.

ALGERIAN FIELD, AND HOW IT MAY BE REACHED.

Consul James Johnston, of Algiers, reports that at the present time the sewing-machine trade seems to be monopolized wholly in Algiers, and to a large extent in the rest of Algeria, by an American company, whose machines for that country are manufactured in England. The consul continues:

This company has houses in Algiers, Oran, Constantine, and Bône, and sells its machines on long credits, and in retail against weekly payments of 3 francs (60 cents) and upward. Many attempts have been made by first-class local houses, assisted by very liberal terms on the part of other manufacturers, to get a share of the trade, but one by one they have dropped out, clearing off their stocks at a considerable loss.

The only way to do a business here in sewing machines would be to imitate this company and establish stores with large stocks and good show rooms, selling on long credits to dealers and agents in the interior, and by retail on a system of weekly payments in the larger cities. Some French machines are sold for the interior, but the manufacturers do not appear to make any attempt to do business in Algiers nor in any of the more important cities of the colony.

WASHING MACHINES.

DOMESTIC MECHANISMS BECOMING MORE POPULAR.

In regard to the market for washing appliances, Consul D. W. Williams writes from Cardiff:

Female labor is very cheap throughout the United Kingdom, and until recent years the demand for domestic labor-saving appliances was not very great. In Wales, however, a change is coming; agriculture is dying out and mining is engrossing the attention of the masses, fully one-half of the adult male population being thus engaged. The better element among the miners are emerging into the middle class, and this accounts for the change in the status of their women. The demand for various domestic machines is now noticeable, and the demand for washing machines is growing rapidly.

American machines on the market, although underselling the British makes, are only beginning to gain a foothold. Hustling salesmen who can act as demonstrators and representing local dealers in the largest cities—such as Cardiff, Newport, Swansea, Merthyr Tydfil, Aberdale, and Pontypool—could build up a great business. To compete successfully with British makes, American machines must be sold delivered at \$8.50 or less. Some washing machines have been imported from Baltimore to Cardiff via Lord Line of steamers.

ELECTRICAL MACHINERY.

GERMAN CONSTRUCTION QUITE ACTIVE LAST YEAR.

Consul H. W. Harris, of Mannheim, says that reports from the various electrical manufacturing concerns in Germany for the past year show much activity in this branch, which the consul thus explains:

This has been due both to a home market which has made large demands on the factories and to an increasing export trade in this class of manufactures. Thus the general improvement of manufacturing plants throughout Germany has been a notable feature of the past few years and has led to the introduction of large amounts of electrical machinery. A considerable amount of electric railway building and the extension of city lighting plants have made a similar demand.

One company states that its production of turbo-dynamos (turbine engines and dynamos combined) was large, especially in machines of 1,000 kilowatt type. Reference is also made in the company's report to large demands for 3,000 kilowatt machines and to one of 6,000 kilowatt power in course of construction. The number of machines of this class delivered by the company rose from 35 with a total of 8,530 kilowatt power in the year 1903-4 to 141 machines in the year 1905-6, with a total of 73,475 kilowatt power. The number of employees in this department was 1,606 as against 1,281 the preceding year. In electrical apparatus manufacture, the company reports orders exceeding by one-third those of the preceding year and the number of employees 6,172. In cable, electric lamp, and other branches of manufacture similar increases of business and employees are noted.

MINE-SAFETY INVENTION.

FIRE DAMP EASILY DETECTED BY A NEW GERMAN MECHANISM.

Consul J. I. Brittain, of Kehl, quotes from a recent issue of a Strassburg paper the account of a discovery by Professor Grihant, which should become valuable in mining:

It is said by the use of the apparatus of Professor Grihant that the presence of fire damp in the air of a mine may be determined even when the gas is present in the atmosphere in so small a proportion as $\frac{1}{100}$ of 1 per cent. The article says the invention is simple in construction and easy to understand. It consists of a column of metal, supporting above a cup and below a rod, connected with an electric current. Between the little inverted cup at the top and the rod below is placed a graduated tube, bell shaped, into which is introduced the gas for analysis.

Experimenting with his invention before spectators, Professor Grihant demonstrated, by a very simple calculation, that the explosive mixture used in his test contained 5 volumes of fire damp for 15 volumes of oxygen, and 30 volumes of air, which had been introduced to moderate the effects of a too violent explosion. The gas serving for this analysis was 10 per cent. Professor Grihant experimented a second time with gas at 4 per cent and, although reaching his conclusions by a slightly different method, arrived at equally convincing and exactly similar results as at first.

By the invention it will thus be easy to determine the presence in the air of a mine the existence of fire damp in small quantities before it becomes dangerous.

FOODS AND DRINKS.

TRADE IN MEATS.

UNITED KINGDOM.

SHIPMENTS OF HORSES TO THE CONTINENT FOR FOOD.

Consul D. W. Williams calls attention to the fact that the United Kingdom, which is the largest importer in the world of cattle and sheep for slaughtering purposes, is oddly enough the largest exporter of horses for the same purpose. He writes from Cardiff:

The number of horses, which now average 1 for every 22 inhabitants, has varied very little from 2,100,000 for fifteen years, but the number exported for all purposes rose from 27,612 in 1901 to 47,708 in 1905 and 60,414 in 1906. The exporting of horses for breeding and other purposes had been profitable for many years, but the increase since 1901 is altogether due to the trade in horse meat in certain continental countries.

This is apparent from the fact that only 10,990 of the number exported in 1905 were valued at more than \$100 each. Belgium seems to be the principal buyer of old horses, and the British exports to that country in 1905 showed 3,005 at under \$25 and 18,454 at \$25 to \$50. The average price of ordinary horses, ponies excepted, is \$27.35, but fat horses have sold for \$50 or more. The best horseflesh is sold for 10 to 12 cents per pound, poorer parts for 7½ to 9½ cents, and the residue is made into sausage. This sausage is redder than the ordinary kinds, and is "dimpled with pieces of fat." It is said to be the staple food of many people.

It appears that the trade in the Netherlands is also growing, for the British exports were 2,333 in 1904, valued each under \$25, and 3,898 at \$25 to \$50, and in 1905 the number was 11,161 under \$25 and 3,693 at \$25 to \$50. The growing demand for horse meat on the Continent is due chiefly to the shortage and high prices of other meats. Sausage is also a popular form of meat in several countries among classes who for various reasons have no inclination to buy canned meats. At the same time thousands of the best horses in the United Kingdom, in all classes except hunters, have been thrown out of employment by the advent of the motor car, and the reduced demand resulting has contributed to the increase in horse exports.

CANNED-MEAT INSPECTION.

Consul-General Robert J. Wynne, of London, reports that the following paragraph taken from the Grocer's Gazette of London is being copied and generally circulated in the newspapers of Great Britain:

Following the promulgation of the new meat-inspection law in the United States the canned-meat trade is, according to latest advices, rapidly increasing and it

appears likely that within a very short time the consumption will be as large as formerly. The regulations are so rigid and the packers, it would appear, are so eager to carry them out to the letter that they are introducing many new ideas and methods, which will entirely disarm adverse criticism in the future. Published figures show that the growth of the export trade in meats of various kinds from the United States during the last twelve months has been wonderful.

Apart from the new American meat inspection and pure food laws, which for stringency are more severe than any yet enacted by any other nation in the world, the stock yards in all the great packing centers, like Chicago, Omaha, and Kansas City, are, we learn, being transformed into model cities, so that the new conditions will appeal to even the most fastidious visitor as being of the most wholesome and up-to-date character. Large contracts for canned beef for the British Government are now being executed in Chicago, and an interview given by an officer recently detailed to be there on the spot, watching every process, was to the effect that he was extremely pleased with everything he had seen.

PORK MORE POPULAR IN IRELAND.

Consul Alfred K. Moe, of Dublin, furnishes the following information on the Irish pork markets:

The recorded number of pigs kept in Ireland in 1906 reached a total of 1,244,542, or 80,226 in excess of 1905. During the latter year a higher rate was paid for pork than for the preceding twelve years, and this circumstance is accountable for the large increase in the breeding of pigs during the past year. The returns of the official statistics show that the average prices per hundredweight (during a period of twelve years) were 49s. 5d. (\$12.05), against 51s. (\$12.41) in 1893. During the three years ending with 1905 the relative market value of pork, contrasted with beef and mutton, was 49s. 5d. (\$12.05), against 53s. 3d. (\$12.96) for beef and 65s. 5d. (\$15.91) for mutton per hundredweight. Pork revived surprisingly in 1905, rising from an average of 41s. 6d. (\$10.10) in 1904 to 49s. 5d. (\$12.05). The average price of pork in 1906 is not yet made public, but inquiries deduce the statement that the public seems to have changed to pork as a variation from beef and mutton to a much greater extent than during the past few years.

AMERICAN BONELESS MEAT.

Consul Rufus Fleming advises that some time ago the public-health committee of the Edinburgh town council instructed the chief sanitary inspector to obtain samples of the boneless meat sold in that market (imported principally from the United States) and to have these samples bacteriologically examined. In compliance with this instruction, the chief sanitary inspector from time to time submitted samples of the meat to the Usher Institute of Public Health, a branch of the University of Edinburgh, under the direction of Charles Hunter Stewart, M. B., D. Sc., professor of public health. In a report on his examinations, Professor Stewart said that the boneless meat was satisfactory and that there was no call for the committee to take any action.

GERMANY.

THIS YEAR'S RANGE OF PRICES ARE HIGHER.

Consul E. T. Liefeld, of Freiburg, reports on the prices of meats in Germany as follows:

Contrary to the preceding year, the live-stock prices at the beginning of 1907 showed an increase, especially in the case of calves, the cost of which rose rapidly in December. The prices of the vari-

ous kinds of cattle and sheep were higher than during last year and higher than at the beginning of 1903 and 1904. The price of hogs, though lower than in 1906, was considerably higher than during the two preceding years.

As regards oxen and bulls, the prices at the beginning of January on the Berlin market ranged per 110.2 pounds from \$6.66 to \$10.47 in 1903, and from \$6.43 to \$12.61 in 1907. The movements of heifers and cows closely followed those of oxen and bulls. In the case of calves the price experienced an unusually strong increase, rising from \$5.95 to \$13.33 in 1903, and from \$6.19 to \$16.18 in 1907. The price of mutton rose from \$5.71 to \$9.04 in 1903, and from \$5.95 to \$9.52 in 1907. At the beginning of 1903 the live weight of pork rose from \$13.09 to \$14.51, while in 1907 it increased from \$13.57 to \$14.75. This increase in meats not only prevailed in Berlin, but in Hamburg and in other cities.

ASIA MINOR.

OPPORTUNITY FOR AMERICAN PRODUCT IN SMYRNA.

Consul E. L. Harris reports that foreign residents in Smyrna have established depots which supply them with a great many of the vegetables to which they were accustomed at home. His letter continues:

This applies especially to English and German subjects residing in this city. Up to date the canned goods and meat imported and sold at retail prices in these stores have come principally from either England or Germany. Sauerkraut and sausages, pickled herrings, mushrooms, asparagus, canned fruit of every description, cheese, sirups, etc., are brought into Smyrna in large quantities, and they come almost exclusively from the two named countries.

There is an opportunity here for American canned fruits of every description. It may seem incredible, the idea of sending fruit to a country which produces figs and oranges in abundance, but it can be done nevertheless. Asia Minor has been compared to California. The two countries have much in common as far as climate and soil are concerned. In the one country everything which human ingenuity can provide is brought to aid nature in fruit culture. In the other, with the exception of a few vineyards and orchards, near the city of Smyrna, everything from olive and date trees to licorice root grows wild. A really rational system of gardening, fruit growing, or farming is absolutely unknown in this country. There is not a canning factory between Smyrna and the Persian Gulf. It is impossible to estimate how much fruit drops from the trees and rots in the ground each year for want of picking or communication to the nearest market. This is the reason why there is a market for American canned fruit in Smyrna, and there always will be one until there is a radical change in the method of culture and preservation of fruit in Asia Minor, a contingency which will not enter as a competing factor for many years to come.

MARMALADES, SOUPS, ETC.

There is hardly a jelly or jam made in the United States which would not find a market here. There are a great many marmalades sold in Smyrna, brought chiefly from England. Jams made of the

following fruits as well as the fruits in a purely canned state would easily come into favor: Currant, raspberry, strawberry, apricot, blackberry, orange, cherry, pineapple, peach, quince, gooseberry, crabapple, apple, pear, and plum.

Soups from mock and green turtle, canned entrées, deviled meats, boneless ham, etc., could also be introduced. American fruit concerns have opened depots in many European cities which have met with abundant success. One might even be established with profit in Smyrna. Of course the American colony here is too small to take the initiative in such an enterprise, nor could a canned fruit, meat, and vegetable depot exist if it depended wholly upon the patronage of American residents alone. But the fact that these American products have found favor in Europe and other parts of the world is a guaranty that they would also find a ready sale in Asia Minor. At present small quantities of these products find their way into this city, but a systematized effort to push their sale would be well rewarded.

SIBERIA.

PRESENT MARKET CONDITIONS FOR BEEF AT VLADIVOSTOK.

Consul Roger S. Greene writes as follows from Vladivostok on the sources of beef supply for that Siberian port:

The principal source of supply of fresh beef for Vladivostok is at present Australia, the meat being brought dressed and frozen. Some meat comes from Chefoo, China, on the hoof, and from Korea. During the two or three months of extremely cold weather, the cattle region about Tomsk, Siberia, also competes. The supply from this vicinity is very small. A couple of shiploads of frozen meat from the Argentine Republic have also been brought in. The Australian dealers have a certain advantage in that they have large contracts for deliveries in Manila, enabling them to secure better freights than would otherwise be possible for their comparatively small shipments to Vladivostok, which vary from 500 to 1,000 tons per steamer. Shipments have been coming about once a month. Prices are very unstable. The retail price is at present 25 kopecks per Russian pound, about 14½ cents United States currency per pound avoirdupois. Meat is sold in large quantities here by the pood, which is 36.112 pounds avoirdupois. At present the price for large quantities is about 7.2 rubles per pood, or about 10½ cents per pound avoirdupois, but it is said that it will fall to about 6.5 rubles, or, roughly, 9½ cents per pound.

There are at present no cold-storage warehouses in Vladivostok, so that it would be necessary for ships bringing meat to remain here until the cargo was sold. [A list of large meat dealers at Vladivostok, furnished by the consul, is on file at the Bureau of Manufactures. One of these dealers expresses a willingness to handle American frozen beef at a certain price.]

WORLD'S BACON SUPPLY.

THE LEADING FACTOR IS THE UNITED STATES.

In a report to his government, the Canadian commercial agent at Birmingham, England, submits an interesting synopsis of an article on the world's bacon supply, published in a continental journal,

from which it would appear that the world, to a very large extent, is dependent on the United States for its supply of this product. The following are extracts from this report:

Southeastern Europe, the original home of the hog, may be completely passed by, for, since epidemics and want of food have decreased the number of hogs, and the German market has been closed, Hungary, Servia, Roumania, and Russia no more influence the world's price for bacon. Italy and France, which supply their own requirements at about two-thirds the price in Germany, can not be reckoned within the world's market. Switzerland, Spain, and Norway import bacon. Sweden produces its own requirements, and is endeavoring to again become an exporter of bacon, which it has not been since the introduction of duty on maize and other articles of food for hogs eleven years ago. The only two countries in Europe which export hogs or bacon are Ireland and Denmark. Ireland exports 30,000 hogs to England weekly, of which two-thirds are alive and the rest in the shape of bacon; while 1,500,000 hogs, in the shape of bacon, are annually exported from Denmark to England.

Whence are the ever-increasing requirements to be supplied?

Outside of Europe there is only North America to be reckoned with. If the Canadian population goes on increasing as has hitherto been the case, Canada's export of bacon to England will cease in the course of a few years. There only remains the United States, and it is that country that regulates the price of bacon in the world's market. In the course of time and under the influence of the immense increase in population, things, however, are subject to such changes that there is every reason to believe that this apparently inexhaustible country, within a reasonable time, will consume its own production of bacon. The large slaughterhouses west of Chicago, which as little as twelve years ago competed with Chicago on the eastern market, now send almost everything that is not consumed in the States around the Missouri to the Western and Southern States, while the East has more and more to fall back on its own production. The maize-growing States of Iowa, Illinois, Minnesota, Missouri, Kansas, and Nebraska are the only places in the world where an increase in the number of hogs raised takes place, and if it happened, through some cause or other, that the number of hogs produced in those parts was reduced by, say, 20 per cent, we could see prices which would make the producers jump for joy, while millions of people, to a greater or lesser extent, would have to give up animal food.

FISHING INDUSTRY.

AUSTRIA.

MOVEMENT TO CREATE A FUND TO ASSIST FISHERMEN.

Consul G. M. Hotschick, of Trieste, reports that the liberty of fishing in Austrian waters, secured by Italy through trade convention for her subjects for another term of twelve years, renders the situation for the Austrian fishermen more precarious. The consul continues:

The condition of many of the fishermen is miserable. Without personal credit they are dependent on money brokers, who take usurious interest.

Societies and a number of influential persons have started a movement to strengthen the Austrian fishery and to help fishermen without means. It is demanded that the Austrian Government shall create a fund from which fishermen in need of assistance may be given a loan either without interest or at a low rate. The fund desired from the state treasury is \$12,180 per annum from 1908 to 1912, \$8,120 per year for the succeeding two years, and \$4,060 for 1915, a total of \$81,200. The repayments of loans by the fishermen revert to the fund.

The supporters of the movement for the benefit of the fishermen call the Government's attention to the fact that Denmark has a fund of \$308,200, Sweden \$348,400, and Norway \$938,000 for the same purpose, and that the results obtained there are encouraging. The loans are to enable the fishermen to buy better equipped vessels and better fishing apparatus and the fish hatcheries to establish up-to-date hatcheries.

The supporters of the movement point also to the fact that it would be a direct support for the navy, as the latter's recruits are taken from the population of the coast, a great part being fishermen.

THE MARKET AT TRIESTE.

Consul George M. Hotschick, of Trieste, reports as follows on the trade in fish at that chief port of Austria:

During the year 1906 there were 17,880 quintals (quintal 220.46 pounds) of salt-water fish and 55,550 of shellfish (lobster, black-clawed crabs, spider crawfish, etc.) sold in the public fish market at Trieste. Of these quantities of edible sea products the Austro-Hungarian Empire participates with 10,203 quintals of fish and 52,700 of shellfish and Italy and Greece with 7,677 quintals of fish and 2,800 of shellfish.

In comparison with the previous year the supply of fish increased 900 quintals, while the supply of shellfish decreased 8,000 pieces. Italy and Greece imported principally the common mullet. In the Trieste public market there were sold 95 different species of fish; the lowest price recorded was for the "Guatto," which sold for 1 cent per pound, while the highest price was 61 cents per pound for "Tria," a species of the mullet.

MEXICO.

CONCESSION TO EUROPEAN COUNTRY.

According to the British minister at Christiania, a Norwegian company in Mexico, *La Compania Norvega Mexicana*, has been granted a valuable concession by the Mexican Government, namely, the sole right for fifteen years of carrying on fisheries of every description in the Gulf of Mexico. Besides providing the towns with fresh fish, it is intended to establish canning factories and to carry on oyster breeding, as well as lobster and prawn fisheries. It is stated that the managing director of the company will shortly visit Norway to buy fishing vessels and tackle, ice-making machinery, etc.

ENGLISH CHEESE MARKETS.

DEMAND AND ADVANCED PRICES—PRESENT TRADE OPPORTUNITY.

Consul D. W. Williams, of Cardiff, Wales, reports that the American producers can not afford to forget that the United Kingdom is the best market in the world for food products. He gives some statistics on the imports of cheese for the year 1905, to which the Bureau of Manufactures adds those for 1906. He says:

The population is increasing at the rate of 1 per cent a year, the standard of living is constantly rising, and at the same time there is

a corresponding decline in agriculture. The present advance in the prices of cheese emphasizes these facts. The advance began in June, 1906, and it is anticipated that ordinary cheese will soon be retailing at 16 cents a pound. The depletion of stocks is attributed to several causes, such as the drought of 1906, which curtailed the milk supply, the cornering of the warehouse stocks on hand, and the increased consumption resulting on account of the meat scandals so widely exploited. These conditions are temporary in character, but there are constant causes at work, upon which American producers can depend in making an effort to regain lost ground in this country.

In 1900 British purchases of cheese from the United States amounted to 680,583 hundredweight (English hundredweight=112 pounds), with a value of \$8,703,745; and in 1901 to 540,102 hundredweight, worth \$6,370,305. The retrograde movement continued until last year, when a revival occurred for American cheese, as the following table shows:

Countries.	1904.		1905.		1906.	
	Cwt.	Value.	Cwt.	Value.	Cwt.	Value.
United States	224, 830	\$2, 449, 368	175, 256	\$2, 165, 608	233, 425	\$3, 195, 855
Netherlands	233, 601	2, 640, 222	214, 033	2, 423, 354	229, 343	2, 656, 852
France	44, 263	672, 984	48, 884	769, 997	43, 244	684, 726
New Zealand	84, 947	1, 057, 423	78, 626	989, 574	126, 216	1, 303, 646
Canada	1, 900, 556	20, 608, 606	1, 858, 767	23, 379, 503	1, 925, 835	27, 419, 263
Other countries	66, 095	1, 006, 357	67, 116	1, 109, 655	80, 713	1, 262, 043
Total	2, 554, 297	28, 434, 960	2, 442, 682	30, 842, 691	2, 638, 776	37, 022, 585

HIGHER PRICES.

The average import price for the period 1896 to 1900 was 11 cents a pound, and for the period 1901 to 1905 12 cents a pound, while in 1906 it rose to 12½ cents a pound. This gain indicates that native production has decreased, although the number of cows and heifers in milk or in calf for the past fifteen years have increased. In 1891 there were 2,657,054 head, and in 1906 2,738,411. This is an increase of only about 3 per cent, while the population has increased more than 15 per cent in the same period. In addition to this it must be borne in mind that there has been an enormous increase in the demand for milk in the cities during the past fifteen years, and the profits in the milk business have of necessity reduced the cheese output. These constant causes will undoubtedly continue for years to come. Indeed, it is safe to predict that famine conditions will prevail in many parts of Europe before the end of this century unless the Americas and Australia can supply Europe's constantly growing demand for food.

The example of Canada is an object lesson for American cheese producers. It has increased its exports to the United Kingdom by 20 per cent in five years. It is hardly necessary to call attention to America's natural advantages over Canada in this matter, but Americans must bear in mind that quality as well as price must be considered to fully reenter this market. Adulterated American cheese will not sell. Retail prices in Cardiff now range from 13 cents for the cheapest Dutch cheese up to 18 cents. There is a steady demand here for a 14-cent cheese. Canadian Cheshire sells rapidly at this price.

FLOUR AND WHEAT.

FRANCE.

OUTLOOK FOR THE INTRODUCTION OF THE AMERICAN PRODUCT.

Replying to an inquiry from a western miller, Consul Alphonse Gaulin, of Havre, gives the following information concerning the flour trade in France and the outlook for the introduction of American flour:

France is not a large importer of flour, as the following statement showing the imports thereof entered for consumption during the last three years proves:

Whence imported.	1904.	1905.	1906.
	<i>Barrels.</i>	<i>Barrels.</i>	<i>Barrels.</i>
Austria-Hungary.....	74,383	78,074	68,219
Algeria.....	80,871	49,700	26,129
Germany.....	1,781	618	427
Italy.....	19	15	472
Belgium.....	294	101	160
United States.....	16	106	114
All other countries.....	74,883	22,358	3,037
Total.....	232,147	150,974	98,558
Exports of French flour.....	185,247	336,577	344,997

During the month of January, 1907, the United States sent only 220 pounds of flour, against 6,601 pounds during the corresponding month of 1906. The foregoing figures, to be sure, do not hold out the promise of an indefinite expansion of the American flour trade in France.

THE OUTLOOK NOT PROMISING.

There are several obstacles in the way of an expansion of the American flour trade in France, the excellence of the local product; the French milling industry, which according to the latest statistics, counts 33,326 flour mills in the country, and the rates of duty on flour, which are not only almost prohibitive in themselves, but which are relatively higher than the tariff rates on wheat, and consequently make it more profitable to import wheat than flour. While wheat pays \$1.35 per 100 kilos (220.46 pounds), flour is dutiable according to the rate of extraction as follows: 70 per cent and above, \$2.12 per 100 kilos; between 70 and 60 per cent, \$2.60 per 100 kilos; 60 per cent and below, \$3.08 per 100 kilos. The duty based on "extraction" is explained as follows: Flour which represents 70 per cent and over of the bulk of grain used to produce it pays a certain rate, and so on.

In view of the foregoing, it seems as if, under the existing conditions, the most that can be hoped for American flour is that it may take, in a large measure, the place now held by the Hungarian product. Algeria will probably always hold its own, as its flour is admitted duty free. Austria-Hungary, on the other hand, is on the same footing as the United States from the standpoint of the tariff, and not much more favored as far as the cost of transportation is

concerned. The fact must not be overlooked, however, that Austro-Hungarian flour enjoys the highest reputation. It easily maintains its ground in the French market, although it is quoted at prices ranging from \$8.68 to \$9.45 per 100 kilos, while the best French flour rarely sells at prices exceeding \$6.36 for the same quantity.

It is not unlikely, however, that the choicest grades of American flour could obtain a firm foothold in France if properly introduced, and offered at comparatively low prices. Scrupulous attention should be paid from the start to the uniformity of grades, as otherwise it will be impossible to obtain permanent results. [The names of Havre firms which would be likely to take an active interest in the American flour trade can be had upon application at the Bureau of Manufactures.]

EGYPT.

FRANCE SUPPLIES SIXTY-TWO PER CENT OF THE FLOUR.

The British chamber of commerce in Egypt, by its investigations and reports, is doing much to increase British trade in that country. A recent report from the chamber on the flour trade of Egypt gives statistics which show that French flour dominates the market, having superseded English flour therein nearly altogether—62 per cent of the imports in 1905 being French flour—and it is with a view to helping the English millers to regain their lost trade that the chamber prepared this flour report.

In the following extracts from the report quantities have been reduced from kilograms to barrels, and money from Egyptian pounds (\$4.934 each) to dollars, for the convenience of American millers and exporters who may desire to secure their fair share of the Egyptian flour trade:

Imports of flour into Egypt during the five years 1901–1905.

Year.	Barrels.	Value.	Average price per barrel.
1901.....	748,978	\$2,584,700	\$3.45
1902.....	657,207	2,258,500	3.43
1903.....	763,188	2,635,100	3.45
1904.....	881,878	3,102,700	3.52
1905.....	1,365,378	4,891,100	3.58

Imports from the several countries in 1905.

Country.	Barrels.	Value.	Average price per barrel.
France.....	878,957	\$3,066,100	\$3.47
Russia.....	185,226	810,200	4.43
Italy.....	133,994	408,800	3.05
Roumania.....	56,427	208,200	3.60
England.....	43,574	155,700	3.57
All other countries.....	67,200	247,600	3.68
Total.....	1,365,378	4,891,100	3.58

The principal quality of French flour sold in Egypt is known as "Soft White," the price ranging from \$3.86 to \$4.05 per 220 pounds, f. o. b. Marseille. The "Hard White" ranges from \$3.66 to \$4.40.

The English flour is sold in sacks of 280 pounds, the usual price being from \$5.10 to \$5.60 per sack, c. i. f. Alexandria. The customs duty on flour is the usual 8 per cent ad valorem, with about one-half per cent for quay duties if landed at Alexandria. The flour trade, the report adds, is one of the few branches of Egypt's imports conducted on a cash basis, so far as the country of origin is concerned, the Egyptian merchant, as a rule, either opening a credit abroad or paying cash against documents. The bakers and retailers have credits from the local merchants of from thirty to sixty days.

The Board of Trade Journal while impressing on British millers and exporters the importance of catering to this Egyptian flour trade, warns them that great care must be taken to deal only with reliable men, whether merchants buying for their own account, agents selling on behalf of the millers, or actual local users. The complaints received by the Journal concerning English flour were (1) the delay in receiving the goods, and (2) the damage done in transit by rats, in consequence of the bags not being strong enough.

MANCHURIA.

LOW PROFITS BUT INCREASING PRODUCTION—AMERICAN SACKS.

During a recent tour of northern Manchuria, Consul-General Thomas Sammons, of Newchwang, found that the capacity of the 20 flour mills in that part of China had an output of upward of 85,000 poods, or approximately 15,300 barrels per day. Mr. Sammons furnishes the following particulars of that flour trade:

At Harbin, where there were six large and six small flour mills, the output was estimated at 45,000 poods (36 pounds to the pood) per day. This industry was established by Russian business men and is growing. It was found that the wheat crop surpasses that of the bean products in marketable value, and that as a result Chinese farmers were, in many instances, giving up the raising of beans and going into the wheat-producing business.

Cloth flour sacks are purchased by Manchurian flour-mill operators in lots of from 50,000 to 100,000. The American cotton sack is used. These sacks are not, as a rule, printed in attractive colors, together with the name of the various brands, etc., as is the custom in America. The brand and frequently the name of the miller is stamped on the sack by hand. Many of the mills are operated continuously by three shifts, each shift being on the basis of one Russian to four Chinamen. The cost of wheat following the war ranged high, being 65 kopecks per pood, or about 1 gold cent per pound. The normal price was given as 50 kopecks per pood; total estimated cost per pood, 85 kopecks, 20 kopecks per pood being for labor. It was estimated that 65 per cent of wheat was saved in flour and that the balance sold for 50 per cent of the cost of the wheat—that is, at from 22 to 33 kopecks per pood. There was no waste. Everything is utilized. The wood used for fuel in creating steam power in the mills was considered excessively high, fuel being scarce.

The Russian mill hands were paid 60 and Chinese helpers 18 roubles per month, equivalent to approximately \$30 and \$9 gold. With two

Russian and eight Chinese helpers to each eight-hour shift, one mill turned out in the neighborhood of 2,600 poods of 36 pounds each per day.

SELLING PRICE OF OUTPUT—AMERICAN FLOUR.

The flour thus being manufactured was being sold wholesale at from 60 to 95 cents gold per pood of 36 pounds and at retail at from 65 cents to \$1 per pood of 36 pounds. The millers complained of the high cost of wheat and the falling price offered for the flour and by-products. During the war high prices prevailed and profits were reported satisfactory, but with decreasing demands and a continuance of war-time prices for wheat the flour manufacturing business was, it was stated, unsatisfactory. Still, new flour mills were contemplated, and those already established were being enlarged in some instances. Russian flour manufacturers stated that they realized that they must adjust their business methods so as to succeed on small profits by increasing their sales.

During the war Pacific coast flour reached the northern Manchurian market via Vladivostok. Large quantities of Pacific coast flour, entering mostly through Newchwang and later through Tairen (Dalny), has been shipped into the interior successfully. The demand is growing rapidly, and the northern Manchurian flour manufacturers report that their output is consumed entirely by the local trade.

WORLD'S WHEAT CROP.

The following statement, based on Beerbohm's London List, shows the world's wheat crops for the years named:

Year.	Bushels.	Year.	Bushels.
1875	1,800,000,000	1897	2,281,000,000
1878	2,000,000,000	1901	2,940,000,000
1884	2,240,000,000	1902	3,195,000,000
1887	2,280,000,000	1903	3,292,000,000
1890	2,264,000,000	1904	3,202,000,000
1893	2,474,000,000	1905	3,362,000,000
1895	2,496,000,000	1906	3,500,000,000

SICILY'S WHEAT MARKET.

Vice-Consul Jacob Ritter reports that the importation of American wheat into Catania, Italy, is becoming of considerable importance. He says further:

During the three months ending February 28, 12,500 tons of American hard wheat, valued at \$450,000, were received at this port. This wheat after being mixed with Sicilian and Russian wheat is ground into grits (semola) and then used for manufacturing macaroni and bread, the latter being preferred to that made of flour. Formerly all the grain imported into Catania came from south Russia, which gave very good results, but the heavy Russian demand and higher prices caused the millers here to turn to America.

PRICES OF FOOD.

INCREASED COST IN GERMANY COMPARED WITH AMERICA.

Consul Thomas H. Norton, of Chemnitz, reporting on the increased cost of food products in Germany, says:

The German statistical bureau has just issued a summary of the average prices of food products in the Empire during the past year, which shows clearly that the general increase of cost in the United States for the necessities of life is simply part of a world-wide movement. The average wholesale price per metric ton of 1,000 kilograms (2,204.6 pounds) of ten articles is shown in the following statement:

Articles.	1905.	1906.	Increase+, Decrease-.	Articles.	1905.	1906.	Increase+, Decrease-.
			<i>Per cent.</i>				<i>Per cent.</i>
Wheat	\$40.22	\$41.17	+ 2.4	Beans	\$76.16	\$78.54	+ 3.1
Rye	34.74	37.12	+ 6.9	Potatoes.....	14.04	11.90	-15.2
Barley	35.22	36.41	+ 3.4	Straw	11.42	11.66	+ 2.1
Oats	34.51	38.08	+10.4	Hay	16.08	12.80	-24.9
Peas	55.98	56.64	+ 1.3	Beef.....	281.76	296.79	+ 5.3

All show marked increases except hay and potatoes. The higher maximum tariff on wheat, which became operative March 1, 1906, and added \$7.14 per metrical ton to the former duty, has apparently thus far caused no corresponding increase in price. The following statement shows the average retail price of eleven articles per kilogram (2,204 pounds):

Articles.	1905.	1906.	Per cent of in- crease.	Articles.	1905.	1906.	Per cent of in- crease.
	<i>Cents.</i>	<i>Cents.</i>			<i>Cents.</i>	<i>Cents.</i>	
Beefsteak	35.9	38.5	7.3	Butter	57.6	58.8	1.2
Beef side	30.7	32.8	7.0	Lard	40.4	42.8	5.9
Pork	37.1	40.2	8.4	Wheat flour	7.2	7.3	3.4
Veal	36.4	39.2	7.9	Rye flour	6.2	6.4	3.9
Mutton	35.2	37.8	7.4	Eggs, per dozen.....	20.2	20.5	6.7
Bacon	40.7	44.5	9.4				

AMERICAN PRICES.

An instructive comparison can be made with Dun's Index figures for American prices during the past two years:

Articles.	1905.	1906.	Percentage of increase (+) or de- crease (-).
Breadstuffs	17.923	18.831	- 4.8
Meats	9.677	8.614	+12.3
Dairy and garden products	12.590	9.982	+26.1
Total living expenses	106.216	96.312	+ 7.0

The recently published statistics regarding the consumption of bread in the Empire show that for fifteen years past there has been no alteration in the total annual consumption of bread per capita. There has been, however, a marked change in the relative amounts consumed of bread made from wheat flour and of the less expensive rye bread. In 1893 the per capita consumption of rye bread was 348 pounds; from

1893 to 1905 the average was 330 pounds, and in 1905 it was 324 pounds. Wheat bread shows a corresponding growth from 183 pounds per capita in 1893, with an average for the next twelve years of 199 pounds, to 206 pounds in 1905. As this increased use of the costlier wheat bread has taken place almost exclusively among the working classes, it testifies abundantly to their more ample wages and greater command of the comforts of life.

FRUIT TRADE.

SOUTH AFRICA.

GOVERNMENT INSPECTION FOR HELPING SALES—LONDON EXHIBIT.

Special Agent Raymond F. Crist, in a report from Cape Town, describes the fruit-inspection methods adopted by the British South African government, a forecast of which was published in Monthly Consular and Trade Reports for December, 1906, from Vice-Consul C. M. Knight. Consul-General Julius G. Lay also forwards from Cape Town an official copy of the new fruit-inspection regulations, which may be inspected at the Bureau of Manufactures. Mr. Crist writes:

The greatest interest is exhibited by the people of South Africa, both in official and private life, in the exhibition of South African products in London, which was opened on February 23. For this purpose selected shipments of fruits, cereals, wools, ostrich feathers, and other farm produce were made. It is the universal belief that these products, especially fruits, which can be so regularly and easily supplied in London from South Africa, have not been given their due recognition.

Practically all of the exports of wools, mohair, hides, skins, and feathers go direct to Great Britain, and constitute 80 per cent of the exports of South African produce other than minerals. These five items aggregate more than \$30,400,000, while the total exports exclusive of mineral products amount to \$35,282,000. On the other hand, the excellent fruits of South Africa—many of which are of American varieties—are practically unknown, and efforts have been put forth to make a showing of these products at the London exhibition that will bring their good qualities of appearance, freshness, texture, and fine taste to the attention of the British market. In anticipation of this the Government has undertaken to establish a system of inspection which will guarantee all fruits to the buyer and consumer to be of a high standard and uniform quality.

IMPORTANCE OF INSPECTION.

That such an inspection is positively essential to secure the fruit suited for export purposes, to safeguard the interests of the growers, and to educate them up to a knowledge of the requirements of fruit exportation is more than demonstrated by the result of the first inspection. Out of 543 boxes inspected, consisting of 237 boxes of plums, 147 boxes of peaches, and 159 boxes of nectarines, the government inspector reported only 2 boxes of peaches which he considered sound enough to warrant receiving the official inspection stamp. Some of the boxes were too loosely packed, others contained fruit with blemishes which absolutely spoiled the appearance; in fact, 75 per cent of the lot

showed ignorance on the part of the handlers of the fruit and of the requirements of ocean shipment, and about 25 per cent was totally unfit for export purposes. Out of 1,635 boxes of export fruit examined by the fruit inspector, on the occasion of his second weekly inspection, 1,141 passed. In order to enlighten fruit growers upon the many phases of this most important industry the government, through its department of agriculture, has undertaken to send out instructors through the fruit districts of Cape Colony to show growers how to select, grade, and pack for sea shipment.

The exercise of the highest skill on the part of the picker, grader, and packer is essential in the preparation of fruit for shipment either by rail or water, and as American growers must be prepared to submit their fruit to the vicissitudes of both means of transportation, in all foreign shipments extra vigilance should be observed. Shipments of imported fruits in the South African market should arrive in the best possible condition in order to receive full valuation. Evidence of careless handling and packing has caused a falling off of as much as 50 per cent in price for the same grades of fruit in a single shipment.

Fruit should be perfectly sound and dry at the time of packing, should be handled as lightly as possible, and packed so firmly as to insure solidity without bruising. If barrels are used they should contain ample perforations to admit of free circulation of air, thus preventing sweating and decay. Boxes with suitable openings pack more economically than barrels on tonnage measurement.

SHIPMENTS TO SOUTH AFRICA.

As the requirements of ocean shipments of fruit from America to this or any other foreign field are quite similar to those from the South African market to London, the results of the experience and study of those engaged in this business are given here for the benefit of American fruit growers and shippers.

In all shipments to South Africa the wide variations in temperature should always be borne in mind, as many ships are not provided with cold-storage equipment. Passing from the temperate zone ships are from three to five days in hot tropical temperature with exceedingly moist conditions, after which the south temperate zone with accompanying moisture produces excessive sweating and causes losses in fruit through rotting. A form of box for apples and other fruit shipments which has proven eminently successful is one holding from $1\frac{1}{4}$ to 2 cubic feet, with dimensions of 12 by 12 by 18 inches or larger, having heavy end and bottom boards of seven-eighths-inch stuff and sides and top of three-eighths-inch wood. The sides are so built as to make a vent the whole length along the top of one-fourth inch. This admits of air circulation and practically insures the arrival of the maximum quantity of the fruit in prime condition. The saving in ocean freight charges through closer packing than barrels should more than offset any increased outlay in wood.

SOUTH AFRICAN INSPECTION.

The conditions to which export fruit must conform to receive government inspection and the stamp "Passed by government inspector" are quite comprehensive and practical, though not unnecessarily rigid.

The sizes of the boxes for all classes of fruit must be either 18 by 12 inches or 18 by 24 inches, and of any depth the shippers may desire. The boxes must be marked on one end with the name or registered

mark of the exporter, together with the grade, variety, net weight, and number of fruits contained therein. Only two grades are officially stamped, "extra selected" and "selected;" all others go forward without government inspection. All fruits must be divided into these two grades by the packers, except grapes which are not graded. None but the best fruits are to be so graded, and second-rate fruit must not be so marked. All fruit considered of first-rate quality must be free of all blemishes affecting the appearance of the fruit, evenly graded and uniform in size, of the characteristic shape of its variety, and only one variety of fruit may be contained in a single box. All fruit falling short as these requirements will be rejected as not qualified to receive the government stamp. Certain minimum sizes of fruit are set for classing as "extra selected" and "selected;" also certain varieties are named which will not be given the government stamp.

Pears should measure at least $2\frac{1}{4}$ inches for the smaller and 3 to $3\frac{1}{2}$ inches for the larger varieties to receive the higher grading; those of $2\frac{1}{4}$ inches of the small variety and from $2\frac{1}{4}$ to 3 inches in the larger are admissible in the "selected" grade. Jargonelle and December pears will not be officially stamped, and Keiffer, Le Conte, Cape Kalabas, Safran, Winkfield, Clairgeau, and Souvenir du Congres must be marked "stewing."

Yellow fleshed peaches, all varieties of clingstones, and Gladstone will not be branded. Peaches between $2\frac{1}{4}$ and $2\frac{1}{2}$ inches are eligible for the lower grade, and from $2\frac{3}{8}$ to $2\frac{5}{8}$ inches to the higher. Nectarines of the clingstone variety will not be stamped, and 2 inches is the minimum for selects and $2\frac{1}{8}$ inches for "extra selected."

Apricots of the early varieties are rejected, and the same minimum prevails as in nectarines in selects, with $2\frac{3}{8}$ inches the minimum in extras. Burbank and Botam Japanese plums will not be given the Government brand. All others of $1\frac{1}{4}$ to 2 inches are classed as selects, and $2\frac{1}{8}$ to $2\frac{1}{4}$ inches are the minimum measurements for extra selected. No domestic plums will be graded "selected," and only $1\frac{1}{4}$ to $1\frac{1}{2}$ inches measurements are eligible for the Government brand of "extra selected."

WRAPPERS AND PRICES.

In all of the foregoing the dimensions are fixed for each variety, the variations being due to different varieties. All fruits other than grapes must be wrapped in tissue paper, and may also be packed in excelsior. Grapes must be placed in excelsior, and may also be tissue-paper wrapped. Grapes are not included in the grading as to size at present, and will be branded with the inspection stamp if the fruit is in good condition, bunches and grapes of satisfactory size, and the bunches properly trimmed and cleaned.

The prevailing prices of fruit in small lots for export, together with the seasons available, are given:

Fruit.	Season.	Quantity.	Price.
			<i>Cents.</i>
Peaches	January 10 to February 21	24 to 35	36
Plums	January 3 to February 21	24 to 35	32
Nectarines	January 24 to February 28	24 to 35	36
Pears and apples	February 7 to April 25	20 to 24	32
Grapes	January 20 to April 11	a 12	36
		a 24	48

a Pounds.

These prices include delivery in England, with an added cost of 1 shilling for delivery in Ireland or Scotland, except in the 24-pound quantities of grapes, where 36 cents additional is charged.

NATAL ALSO PARTICIPATING.

THE GOVERNMENT IS PROMOTING THE EXPORT TRADE.

Consul E. S. Cunningham, of Durban, reports that the progressive citizens and government of Natal have turned their attention to developing fruit growing and exporting, concerning which he writes:

Many of the subtropical fruits are indigenous and all can be grown when cultivated. In stimulating the interest the Government has taken the initiative, and some weeks ago a proposition was made by the Secretary of Agriculture to transport free to the London market 500 cases of naartjes, which proposition has been accepted by the Natal Fruit Growers' Association. Other arrangements for the benefit of the fruit growers have been made by the Government, which indicate that it will not be long before the fruits of Natal will be a common thing on the British market.

It is announced that the Government is prepared to send an expert packer to visit growers to show them how to pick, grade, and pack fruit to meet the demands of the London market and to best insure its safe transportation.

The question of freight has been a great hindrance heretofore, but through arrangements perfected by the Government a rate of \$6.07 per ton has been secured from all lines for carrying fruit as deck or between-deck cargo, including the charges from Durban to London. It is claimed that citrus fruit properly packed would arrive in good condition on the London market when carried as proposed.

The pineapples grown here are very fine, and if delivered north in perfect condition would bring a good price, as at the season they ripen the northern market has very little fruit. The pineapples are cut, leaving about 2 inches of stem, which is dipped in sealing wax, and the fruit is then carefully packed in cotton and put in cases.

FRANCE.

SUGGESTIONS FOR THE INTRODUCTION OF AMERICAN FRUIT.

Consul John C. Covert, of Lyon, has received a letter from the Idaho State Agricultural Association stating that the farmers of that State are about to embark in an effort to sell large quantities of their apples to foreign countries, and making inquiries about packing, etc., and the possible sale of their apples in France. Mr. Covert responds:

There are a number of wholesale dealers in fruit in this city who say that they sometimes have to import large quantities of apples from foreign countries. Their imports thus far have been principally from Canada. Russet apples are very popular with them. A few apples have been received here from California and they were very well liked. Some fault was found with the packing, from which many of the apples were found bruised upon arrival. The largest fruit dealer in Lyon suggests that a heavy lining of coarse paper be placed on the sides of the barrels, between the apples and the wood. They should also be packed

in as small quantities as possible. In all the cities of France there are many thousands of small fruit dealers who would buy a small barrel or crate of apples, but could not buy a large barrel.

In the great central markets in the cities of this country, game, fish, or fruit, in their season, is sold at auction once or twice a day. If the Idaho people would appoint an agent here to receive their apples and sell them at auction, they might succeed in forcing their way into this market. These sales are all conducted under the authority of the Government.

GERMANY.

INCREASING IMPORTS—EVAPORATED AND CANNED GOODS.

Consul H. W. Harris, of Mannheim, states that the German newspapers refer to the fact that the native fruit supply is insufficient and is likely to remain so in spite of state and other encouragement given to fruit growing. Concerning the fruit trade he writes:

During the months from March to November, inclusive, of 1906, 154,655 metric tons [metric ton 2204.6 pounds] of apples valued at about \$5,000,000, were imported into the Empire. During 1905, the imports were 132,433 tons of apples and 34,183 tons of pears. The German canning industry has developed rapidly in recent years and tends to increase the consumption of fruit of all kinds.

The demand for American dried and evaporated fruits, which has been a considerable one, should steadily increase and invites special care on the part of our fruit shippers to so select, pack, and ship their fruits as to meet the exact demands of the market. Complaints have, in some cases, been made as to the quality of American fruits shipped to this market and as to packing. The consumer is apt to find the prices relatively high especially when the goods have passed through several hands. Local dealers in Mannheim say there has been a considerable demand for ketchup, sauces, and other so-called bottled goods in the past year or two. Goods of American, English or German origin are to be had in local stores. At a local exhibition of food products made in this city recently "mixed pickles" of German bottling formed part of the exhibit.

GREECE.

CURRENT CROP FOR LAST SEASON.

Minister John B. Jackson reports that of the currant crop of Greece of 1906, 181,644,096 Venetian pounds had been exported by the end of the calendar year, as against 155,634,078 pounds at the same time a year before. Minister Jackson continues:

As usual the bulk of the crop, in this instance about two-thirds (more than 121,000,000 pounds), went to England. In this trade the United States still holds second place (21,000,000 pounds), while the trade with Germany and Holland shows still further decrease, and that with France amounts to only about a third of the amount shown at the end of 1905. As far as other countries are concerned the trade was about as usual, with the exception that Japan appears in the list for, I think, the first time, and that China

and Roumania disappear. Brazil is credited with taking about half as many currants as was the case a year ago.

HONDURAS.

EXPORTS OF BANANAS TO THE UNITED STATES.

Consular Agent J. M. Mitchell, jr., reports that the exports of bananas to the United States from the San Pedro district of Honduras during 1906 amounted to 2,347,902 bunches, including the estimated number of "seven-hand" bunches; also 1,980,183 bunches of "eight hands" and upward, called "payables." The number of ships engaged was 210, and the value in silver of the fruit at the side of the railroad was \$1,173,951.

OLIVES AND OLIVE OIL.

ITALY.

PRESENT METHODS OF CULTIVATION AND MANUFACTURE.

The following report on the cultivation of olives and their conversion into oil in Italy is furnished by Special Agent Arthur B. Butman:

The cultivation of the olive is a very important agricultural industry in Italy. It is estimated that fully 2,000,000 acres of land are at the present time devoted to this purpose, while the annual average yield of oil is 75,000,000 gallons. Italy is the largest olive-oil producing country. Spain ranks second, and France third. The production of Italian olive oil is apportioned to the following localities: Liguria, extending along the coast from the French frontier to Massa Carrara; Lombardy, Venetia, Emilia, and the Marches; Tuscany, Umbria, and Latium, Neapolitan provinces on the Adriatic and Mediterranean; Sicily and Sardinia. The largest quantity is produced in the Neapolitan provinces on the island of Sicily, though the quality is much inferior to that of the Tuscan district, which is known as Lucca oil.

GROWTH AND LIFE OF TREES.

The olive tree is of slow growth and long life (estimated from one hundred to one hundred and fifty years), and demands a warm climate, either excessive heat or cold being alike injurious. The lowest temperature which may be borne by the tree is 14° F. Better results—I refer to cases where the fruit is grown for its oil, not for pickling—are obtained in a hilly country with a medium soil, neither too moist nor too rich, and at a moderate elevation. In some portions of Italy one notes the olive trees planted in rows widely separated, with the intervening spaces devoted to vines; but those who have intimate knowledge of olive culture assert that the trees should be grown by themselves. This latter method obtains very generally throughout the district of Tuscany, where the finest quality of oil is produced. The olive groves of this district are usually on terraced hillsides, and the greatest care is given to their husbandry.

The trees are pruned every second year and enriched every third year. Pruning is done during the months of February and March, and between April and June the groves are in flower. The fruit begins to ripen during the latter part of November, and its harvesting continues from that time on until about the 1st of March—that is, in favorable years, when the crops are large. I am informed that the harvest for 1906–7 in the Tuscany district is very light and will not yield more than one-half the usual returns.

GATHERING THE FRUIT.

The fruit is both picked from the tree by hand and gathered from the ground as it gradually ripens and falls, the former method insuring of course a more rapid harvest, and also doing away with the great danger of unsound fruit, which is one reason for inferior oil. Wind and rain storms, during which great quantities of olives are thrown to the ground, resulting in bruised and moldy fruit; frosts, and an insect known as the “olive fly” are the principal causes of an unadulterated yet inferior olive oil. Also, if the fruit is unripe, the oil produced will have a greenish tinge and a sharp flavor; if overripe, the color will be very pale and the flavor insipid, often slightly rancid. It is estimated that the yield of oil for the best variety of olives is about 18 per cent of their given weight, or about 1½ gallons per tree, in a favorable season.

Practically no modern machinery is used in extracting the oil, which is a very simple process, being almost the same as that employed for many centuries past. The more important olive growers have their own mills, to which the smaller growers fetch the fruit for pressing, carrying away their oil. There are no large mills or factories for this purpose in Italy. To avoid bruising the fruit, and thus deteriorating the quality of the oil, the former should be handled as little as possible before it is pressed.

MANUFACTURE OF OIL.

The olives are taken to the mill immediately after being gathered and are pressed within twenty-four hours. The mills, which are worked by water power or oxen, consist of a mill trough of cut stone cemented externally and the millstone, both of which must be nonabsorbent lest a rancid flavor be imparted to the oil. About 10 bushels of olives may be pressed at once, the time occupied for this being about one hour. The fruit is crushed entire (both pulp and stones) until reduced to the consistency of paste. This substance is then placed in flat, circular receptacles, a sort of bag made from rushes tied and placed under the press. Cold water is then poured over the bags to facilitate the flow of oil, which passes into a receiving vessel and is gradually skimmed off the water into a second receptacle, where it is allowed to settle before being transferred to the oil store or terra-cotta jar in which the oil is preserved in the country districts. The oil resulting from the first pressing is known as “virgin oil,” and is of course the finest in quality. The second pressing, which must be performed immediately to avoid fermentation, is carried out in practically the same manner, hot water being used for pouring over the paste before pressing. Oil thus extracted, though lacking body, may still be of fair quality. The residue after these two pressings will still contain a certain amount of oil,

which is fit, however, only for industrial uses. After all the oil possible has been extracted the residue is formed into cakes and used for fuel with satisfactory results.

The oil, after being extracted, is sold to the merchant, who undertakes the process of filtering, which process, through the courtesy of a Leghorn merchant, I was permitted to observe. Pure olive oil is not refined, as many are led to believe, but filtered. Even the finest quality (the oil yielded by the first pressing) contains small particles of fruit and a certain amount of water.

PREPARATION FOR MARKET.

The process of filtering is as follows:

The oil having first been pumped from the casks in which it is sent by the grower to the merchant into a large receptacle with double bottom through which steam circulates, thus being heated and made fluid (in winter the oil hardens almost to the consistency of butter), is then pumped into a filtering tank, where the actual process of filtering takes place by passing the oil through several layers of carded cotton wool, which removes any impurities or sediment. The oil being now perfectly clear, is pumped from the filters through pipes to the covered storage tanks. These tanks are constructed of cement and lined with slate or hard marble and hold about 10,000 gallons each. Here the oil remains at an equable temperature until wanted for shipment. At time of shipment the oil, having been pumped from the storage tanks to tanks in the shipping room, is drawn off and put into barrels, cans, or bottles and packed. Inquiry developed that the oil sent by one Leghorn firm to the United States is contained only in cans and bottles. The barreled oil is sent to England and there bottled or canned.

SUPERIORITY OF THE FIRST PRESSING.

This process appears to be and is very simple, but extreme care must be taken in its execution, as olive oil is easily tainted, being susceptible to any odor. Absolute cleanliness of all appliances is a necessity. The firm alluded to asserts that there is absolutely no such thing as pure olive oil being obtained by a refining process; that pure oil of the finest quality may only be obtained, as previously stated, by the first pressing of the fruit; that such fruit must be ripe, sound, and free from the effects of frost or the ravages of the olive fly, and, lastly, that all presses and filtering utensils must be absolutely clean. While it is a fact that an inferior grade of olive oil may, by being treated with chemicals, lose some of its objectionable odor and flavor, it is nevertheless but inferior oil, though labeled as "refined." The natural and "fine" product owes and obtains its agreeable flavor to and from the sound, ripe fruit from which it is produced. An olive oil of inferior quality will rapidly deteriorate if kept for any length of time. No olive oils improve with age, though the fine quality of oil will, it is claimed, retain its freshness and good flavor for two years. Bottled oil is naturally much more certain to retain its good qualities through course of time than that exported in cans and casks.

QUESTION OF ADULTERATION.

Realizing the importance of the question of adulteration, I have carefully employed every means possible in various Italian cities

from which the oil is shipped and districts in which manufactured to investigate the matter. Large opportunity for adulteration is certainly offered to unscrupulous persons, owing to the numerous cheap vegetable oils which may be employed for the purpose. That adulteration and misbranding are carried on is generally admitted, but it is always the "other fellow" who engages in the practice. However, some points may be safely noted. Olive oil of the best quality is too delicate to permit of adulteration, it being asserted that the addition of even 1 per cent of cotton or other seed oil may be detected. Cotton oil is in more general use in this country for the purposes of adulteration than any other, though when that product is high in price sesame oil is substituted. This latter is also used in its natural state as a substitute for olive oil by the peasantry of some provinces.

An inferior grade of olive oil, which is more or less fetid, is, it is stated, the sort of oil which is adulterated, and, despite the customs duty of \$1.60 per 220 pounds which is imposed on foreign oils entering Italy, a fair margin of profit may be made on the adulterated product.

Again, in the port of Leghorn there is a section known as the "Punto Franco," which is outside the customs limits. Here goods may be relabeled, packed, or adulterated and exported, no duties being imposed.

An importer of cotton-seed oil at Genoa asserts that a large quantity of cotton oil imported from the United States is exported to South America both in its natural state and after being mixed with olive oil and labeled as pure olive oil. All reputable olive-oil merchants, however, are anxious that the practice of adulteration and misbranding be suppressed, as they claim it is a great detriment to the interests of the trade. The fine quality of olive oil is thin—that is, medium—not thick or sluggish, and without the slightest trace of disagreeable flavor or odor.

SPAIN.

NEW METHOD OF EXTRACTING OIL.

Concerning a method invented by the Marquis of Acapulco for extracting olive oil, Consul Louis J. Rosenberg translates the following from a Spanish newspaper of Seville :

By this invention mills, presses, and all other apparatus generally used are eliminated. It consists in reducing the olive to a pulp and then extracting the oil by means of a vacuum. To do this the olives are put into a pulping machine of iron, shaped like a cylinder placed horizontally. In the inside is an axle with blades which reduces the olives to a pulp, leaving the stones entirely bare. At the bottom of this device is a thick wire screen upon which rest the olives, and when these have been entirely reduced to pulp, and without interrupting the movements of the blades, a suction pump is made to work, creating an incomplete vacuum under the wire screen. Then by the effect of the atmospheric pressure the oil of first grade begins to flow, which may reach 40 per cent of the total oil contained in the mass, by adding to the pulp every now and then water at ordinary temperature. If after such conditions no more oil of first grade flows, then hot water or steam is poured into the pulping machine. In this way oil of second and third grade may be had.

As to the production obtained by this method we may state the results given in one trial, in which with one apparatus of small dimensions and in less than six hours 103 kilograms of olives, in bad state, according to analysis, gave an oleaginous richness of 33 per cent, only 23 kilograms being left in the meat of the olive, while with the strongest hydraulic presses the residue pulp has from 6 to 7 per cent of oil.

The agronomic engineer, Diego Pequeño, professor of agriculture at the College of la Moncloa, Madrid, explains the excellent results obtained by this method, considering that the meat of the olive is made of two parts, one solid and the other liquid. In the solid part the channels and interstices diminish progressively, inasmuch as the particles unite themselves, due to the compression, and the whole mass offers greater resistance the more it is compressed and the channels become smaller to the outlet of the liquid. As to the liquid part, when undergoing the compression the effect must necessarily communicate itself to all the liquids contained in the fleshy substance and are obliged to seek the periphery of the charge and central tube of the press with great slowness, increasing proportionally with the compression of the paste formed, and with it the passive resistance which the liquids must overcome, until a moment comes when the strongest pressure will be powerless to make the last part of oil flow. In the Acapulco system the mass retains its initial porosity, due to the continuous slow movement of the blades of the machine, thus allowing the oil to flow with liberty from the canals wherein it is contained, hardly having to overcome any resistance.

A company formed to exploit the Spanish patent will operate several factories this season in various regions so that the olive growers may appreciate its advantages, and will establish various types of factories suitable for all productions.

THE OIL TAX.

EFFORT IN SPAIN TO ABOLISH EXCISE CHARGES ON FOODSTUFFS.

Consul L. J. Rosenberg, in a report from Seville on the movement in Spain for the abolition of the excise tax on olive oil and other food articles, writes:

In Seville and its neighborhood more than in any other part of Spain the poor classes suffer the consequences of the unceasingly advancing prices of food articles. Surprising as it may seem, here in Seville and in most parts of Andalusia, which is the center of Spain's olive oil, the poorer classes must abstain from using this commodity, which is considered as almost indispensable and certainly most nourishing. With the view of ameliorating this situation the chamber of commerce, industry, and navigation of Seville has addressed a well-reasoned communication to the ministry of finance, respectfully requesting that excise tax on olive oil be abolished. The following from a local newspaper shows the situation:

To give an idea of the great increase of price of olive oil in this city it will suffice to quote the following: "The price of the arroba, equivalent to 11½ kilos (kilo 2½ pounds), in 1903 fluctuated from 8½ to 9½ pesetas (paper or silver peseta worth in March 17½ cents), or, say, an average price of 9 pesetas per arroba; in 1904, from 9½ to 10½ pesetas; in 1905, from 10 to 12½ pesetas, and in 1906, 11½ to 14 pesetas. During the month of January olive oil in Seville ran up to 16.12 pesetas; that is, double, with a slight difference, the price paid four years ago. It must be noted that these are warehouse prices and only when sold in large quantities, and to this already excessive price we must add a charge of 3.13 pesetas per arroba for excise tax."

From these figures, which are correct, the price of 1 arroba of olive oil sold in this city at retail can be deduced, and its purchase at such high price makes the commodity a rare luxury to some and an impossibility to others. The reform suggested by the chamber of commerce in its communication is the abolishment of excise tax on all food articles in general and on olive oil in particular. This reform would lower the prices of all articles, and olive oil would cost at least 25 centimos per kilo (2 cents American per pound) less. The chamber of commerce further asks that this reform be put before the Cortes and a law to that effect be enacted immediately. The proposal of the chamber of commerce is considered as a practical way to ameliorate the critical situation which the poorer classes are now facing.

SUGAR TRADE.

GREAT BRITAIN.

RESULTS OF EXPERIMENTS IN ENGLAND.

Consul F. W. Mahin, writing from Nottingham, furnishes further information regarding the cultivation of sugar beets in England and the project to establish a sugar factory in Lincolnshire, stating that successful experiments during the past season have been announced. Consul Mahin continues:

The experimenters now state that it is fully demonstrated that at least the midland section of England can grow the sugar beet to fully meet the requirements of quality, quantity, and cost. For instance, on a farm near Stamford, in Lincolnshire, the yield of sugar beets last year averaged 20 tons per acre—the German average is given as about 16 tons—and expert analysis showed the quality of the beets to be highly satisfactory.

A question has arisen which threatens to embarrass the sugar-factory projects. Fear is expressed that if these projects were accomplished, foreign sugar-producing countries would reimpose the bounties abolished by the international convention of 1902, which they could do by withdrawing from the agreement in 1908 after formal notice thereof, thereby crushing the incipient British industry. To allay this fear, it is proposed that the British Government be asked to give some guaranty that bounty-fed foreign sugar shall not be allowed to compete on equal terms with the home product. It is reasoned, also, that without an assurance of this nature capital would shrink from the proposed beet-sugar factories.

FIJI ISLANDS.

CANE GROWING ON THE INCREASE.

Consul-General J. P. Bray, of Melbourne, reports that the sugar trade of the Fiji Islands has been steadily growing during the past few years, the exports having increased from 31,741 tons, worth \$1,850,024 in 1901, to 58,488 tons valued at \$2,625,934 in 1905. The total area under cultivation is estimated at 40,112 acres, the production in 1905 being 396,090 tons of cane. Out of the six sugar mills in Fiji four are owned by an Australian concern. Next to sugar, the most important article of export from Fiji is copra, of which 10,200 tons, valued at \$612,653, were shipped in 1905.

COFFEE CROPS.

BRAZIL.

THE ROTHSCHILDS DECLINE THE LOAN—ESTIMATES OF THE NEW CROP.

A despatch to the Department of State from the American embassy at Petropolis states that the Rothschild Company, of London, financial agents of the Brazilian Government, had declined to issue a loan of

15,000,000 pounds sterling to that Government for the valorization of coffee. Other financial markets will be sought, and it is expected the contracting States will be able to secure a loan in Germany or Belgium, in which case the guaranty of the Government will be given. Meanwhile the contracting States continue to buy coffee on credit, but so far the price remains stationary. The estimates of the new crop point to a larger one even than the present. The present crop is estimated to yield about 20,000,000 sacks, which, added to the 4,000,000 sacks produced in other countries, will amount to a total of 24,000,000 sacks for the present season. The total annual consumption of coffee is estimated at 17,000,000 sacks, thus leaving a surplus of 7,000,000 sacks, which, it appears, must first be disposed of before the valorization scheme can be successful. At first the contracting States only desired to purchase 2,000,000 sacks, but, owing to the enormous crop, they are now obliged to buy a far greater amount.

SALVADOR.

CROP LESS THAN PREVIOUS SEASON.

A report from Consul-General John Jenkins, at San Salvador, gives the estimate of the Salvador crop of coffee at about 32,500 metric tons (650,000 quintals), being less than last year, owing to the overflow of rivers and the heavy rains of December last, which destroyed coffee plants. Coupled to that loss is the spotting damage to the coffee. While this does not injure the coffee for use, the commercial value is affected on account of its appearance.

INDIA'S PEANUT CROP.

GREATLY INCREASED YIELD—EXTENT OF EXPORTS.

The British India Government estimate of the peanut crop in that country for the season 1906-7 is as follows:

The presidencies of Madras and Bombay, to which this memorandum relates, usually include 80.8 per cent and 19.2 per cent, respectively, of the entire reported area under the groundnut in British India, to which must be added the areas returned by the Bombay native states. The reports must be regarded as satisfactory. The total area under the groundnut has increased by 115,500 acres, or 23.8 per cent, and now amounts to 601,400 acres. The estimated increase in outturn is even more marked, and amounts to 87,800 tons (of 2,240 pounds each) of nuts in shell, or 41.5 per cent, bringing the total to 299,000 tons. The condition of the crop is reported to be fair to good.

Madras reports 507,600 acres, or 29 per cent more than the previous year, from which 225,400 tons of nuts in the shell are expected, as compared with 174,500 tons the previous year. Bombay's peanut acreage of 74,000 acres is a decrease of $4\frac{1}{2}$ per cent, while the Bombay native states report 19,800 acres. The total reported yield of Bombay comes to 73,600 tons (52,300 in British districts and 21,300 in native states), which is just double the 36,700 tons (31,200 in British districts and 5,500 in native states) of last year.

The quantities exported from India during the nine months ending December 31, 1906, and the whole of the five preceding years have been (in hundredweight)—

	From Madras.	From Bombay.	From other provinces.	Total.
1901-2	987,048	98,208	159	1,085,415
1902-3	982,680	52,766	213	1,035,659
1903-4	1,827,243	91,439	3,300	1,921,982
1904-5	1,567,430	42,408	64,583	1,674,421
1905-6	1,117,037	149,559	107,618	1,374,214
1906-7 (nine months)	808,084	20,567	129,982	958,633

MISCELLANEOUS CROPS.

ARGENTINA.

CORN HURT BY DROUGHT—BIG WHEAT AND OATS YIELD.

A despatch to the London Times from Buenos Aires makes the following report on the cereal and linseed crops of Argentina:

The outlook for the corn crop is a very bad one, the long persistent drought has done tremendous damage to the corn plantations, and it is estimated that already fully 50 per cent of the total crop has been lost, and the surplus for export will be very small indeed. The grasshoppers have also done some damage to the young corn. From the districts of 9 de Julio, Chivilcoy, Suipacha, Carlos Casares, etc., advices are that the crop is completely lost. The general opinion is that even with rain the export surplus will not be much more than 1,500,000 to 2,000,000 tons.

Live-stock interests are also suffering rather severely from the want of rain as the pasture lands are all shriveled up, and unless the drought comes to an end soon large numbers of cattle and sheep will be dying of starvation. The province of Entre Rios has suffered exceptionally in this respect, and farmers there have been slaughtering large numbers of their sheep in order to leave sufficient pasture for the remainder.

The dry weather has been excellent for wheat and linseed threshing, and reports are all that could be desired, both as to quantity and quality. The national department of agriculture has issued a revised estimate of the area sown and the probable yield of these two crops, making the wheat production 4,230,000 tons and the linseed 657,500 tons. A considerable portion of the grain will be consumed locally by the numerous flour mills, etc., and the export surplus for this season will probably amount to from 2,800,000 tons to 3,000,000 tons of wheat and 550,000 tons to 600,000 tons of linseed, as against 2,300,000 tons of wheat and 540,000 tons of linseed actually shipped in 1906.

The oats crop is an exceptionally large one. During the past few years the cultivation of this cereal has been making enormous strides in the Republic, as is manifest from a comparison of exports. During 1904 Argentina only shipped 5,000 tons; in 1905 exports went up to 17,000 tons; last year shipments were over 50,000 tons, and this year it is figured that there will be between 200,000 tons to 250,000 tons available for export, though some estimates would put the quantity as high as 300,000 tons. For the first six weeks of 1907 shipments amounted to nearly 35,000 tons.

MALTA.

CROPS OF THE ISLAND.

Consul John H. Grout, of Valetta, reports as follows on the crops of the island of Malta:

The inspector of agriculture states that the total yield of wheat for the season 1905-6 was 17,975 quarters, and of barley 12,020 quarters, a decrease in the former and an increase of the latter. Oranges, beans,

pulse, onions, and potatoes were also largely grown, while 911 acres were used in growing cummin seed against 634 acres the year previous. Cotton was grown on 668 acres, producing 162,448 pounds of lint, none of which was exported.

ASIA MINOR.

FARMING DEVELOPMENT CALLS FOR MODERN EQUIPMENTS.

Consul Ernest L. Harris, of Smyrna, contributes the following article on the agricultural resources and development of that part of Asiatic Turkey:

The province of Aidin is composed of five districts, each of which is under the charge of a governor, who in turn are subject to the governor-general, whose place of residence is Smyrna. The district of Smyrna has 669 villages; Magnesia, 966; Aidin, 450; Denizli, 385, and Mougla, 352.

Asia Minor is one of the richest agricultural countries in the world. The fertility of the soil is excellent, and the climate is favorable to the production of nearly everything that can be grown anywhere. The situation of the country geographically is such that if a line of fast steamers should ever be established between Smyrna and such ports as Marseille, London, and Hamburg, the crops could be easily and rapidly moved toward the chief centers of European population. The extension of the Aidin Railway line will tap a district that has not seen cultivation for more than two thousand years. Everywhere in the interior are to be found ruins of ancient cities, which show that this soil once supported a population ten times greater than its present number.

The commerce of Smyrna with the back country is steadily increasing. New mines are being exploited and mineral waters once famous for their medicinal and healing powers are again being brought on the market. Asia Minor is a mountainous country and when one gets away from the coast districts where the forests have been ruthlessly sacrificed without being replanted, the hills are covered with pine trees which are adaptable for pulp and paper mills. Wherever there are hilltops covered with forests there are, as a rule, natural springs, producing streams which offer opportunities for the establishment of electrical plants and mills. Experts who know this country claim that all these conditions exist not far from the coast.

RANCH LAND—AGRICULTURAL MACHINERY.

Asia Minor is famous for its wool and goat hair. The country also produces thousands of camels, which serve as pack animals for intercommunication. In fact, the condition of the country roads often renders it impossible to use any other means of transportation. There are still immense areas to be had which are adaptable for ranches. It is estimated that 3,400,000 head of live stock are raised annually in the five districts, 588,000 being raised in the district of Smyrna, 979,000 in that of Magnesia, 442,600 in Aidin, and 895,000 and 490,000, respectively, in the districts of Denizli and Mougla. Of oxen there are 131,000, and 120,400 cows, 30,000 buffaloes, 66,500 horses, 97,000

donkeys, 10,500 mules, 1,262,000 sheep, 21,500 camels, 1,660,000 goats, and 1,100 hogs.

The value of the agricultural products of the five districts forming the Aidin province, but not including the revenues from forest land, is estimated to be annually about \$31,284,000.

The awakening of Asia Minor to the need of modern implements of agriculture will present a great opportunity to American manufacturers. Everything needed on a farm will find sale. At present, as a rule, the most primitive methods are in use, although many implements have been imported in recent years. A dealer in agricultural machinery told me the other day that within the last twenty years over 60,000 American plows had been imported and sold. Generally speaking I should say that there are opening markets here for breaking plows, cultivators, disks, harrows, seeders, drills, planters, rakes, mowers, binders, thrashers, engines, wagons, carriages, harness, saddles, carpenters' tools, and household utensils of every description. It would be well for American manufacturers to look into the matter.

Imports of Rice into Hawaii.

According to a Honolulu trade journal, the imports of rice into Hawaii from Japan during the calendar year 1906 amounted to 17,871,892 pounds, as against 5,576,083 pounds in 1905, and 17,686,942 pounds in 1904. The small amount imported in 1905 was due to a short crop and damage done by flood in Japan, but the shortage from this source was made up by larger receipts from elsewhere.

AGRICULTURE.

ITALY.

COOPERATION AMONG THE FARMERS—TENDENCIES IN CROPS.

Special Agent A. B. Butman reports as follows on various Italian agricultural interests, indicating many changes that are taking place in the Kingdom:

The richest agricultural section of Italy is in the provinces of Lombardy and Emilia, both of which contribute to the great agricultural market at Milan. In other sections of the Kingdom the unusual fertility of the soil and the favorable climate are offset by the backward condition of the people; but throughout the peninsula scientific methods are getting a foothold, and the best energies of the Government are devoted to their encouragement. Great attention is being paid to fertilizers and to improved farming machinery. This field affords a splendid opportunity for American exporters of these articles.

The principle of "cooperation among farmers and farming interests" is well developed in Italy, due to the energies of the present Government, and the following table of farmers' leagues, showing the statistics for 1905, illustrates how generally the idea has spread throughout the Kingdom:

Province.	Number of leagues.	Membership of leagues.					Percentage proportion of syndicates according to agricultural people.
		Small proprietors.	Small farmers.	Farmers sharing one-half, one-third, and one-fourth interests.	Agricultural workers.	Total.	
Piedmont	42	836	588	183	4,750	6,357	0.54
Liguria	2	60	15	410	8	493	.21
Lombardy	149	900	729	677	21,219	23,525	2.02
Venetia	36	271	189	52	7,490	8,002	.80
Emilia	456	961	1,100	8,546	80,620	91,227	11.50
Tuscany	16	40	12	449	1,319	1,820	.25
Marche	5	15	17	548	1	581	.14
Umbria	26	1,530	686	3,287	2,495	7,998	3.25
Lazio	38	2,394	696	2,645	2,952	8,687	2.83
Abbruzzo	5	85	114	182	237	618	.10
Campania	19	381	971	250	3,246	4,848	.67
Puglie	42	765	1,750	429	20,372	23,316	4.11
Basilicata	4				705	706	.35
Sicily	142	14,416	6,506	5,729	16,995	43,736	5.89
Total	982	22,664	13,463	23,387	162,409	221,913	2.80

Forty thousand of the 221,913 persons enrolled in these leagues are women. Constant efforts are being made to encourage these leagues to a more thorough study of the science of farming, with a view to increasing production and rendering the harvest easier and its storing away less expensive. As the demand for labor in Italy's developing manufactures grows more and more pressing, it will be found necessary to make farm labor more productive by the use of modern appliances. This is the opening for American export houses, which is so plain as to call for no further explanations.

The study of fertilizers by these leagues is extensive, and large importations are made annually to meet their demands. It is the Italian plan to import the elements of fertilizing material and mix them according to the special needs of the soil to be treated. For this purpose there were consumed in 1906 3,700,000 quintals (1 quintal=220 pounds) of mineral phosphates, valued at \$5,000,000; 300,000 quintals of bones and powdered bones, valued at \$600,000; 200,000 quintals of nitrate of soda, valued at \$900,000; 125,000 quintals of sulphate of ammonia, valued at \$800,000; and 50,000 quintals of chlorides and sulphate of potash, valued at \$250,000, a total consumption in the whole of Italy of more than 5,000,000 quintals of fertilizer material, valued at \$8,500,000 (including sundry items not stated here). The importation of these goods in 1905 were in value \$5,070,000, and in 1904 but \$2,465,000, which shows the rapid increase in this trade. Large quantities of natural manures are used by small farmers who have made no real study of the science of agriculture. Here again there is a splendid opportunity for the extension of American trade in fixed fertilizers.

FRUIT CULTURE—SUMAC AND CHEESE.

A systematic study of the Italian peach crop is under way, in an effort to improve stock and better the market conditions. The olive market is undergoing a like scrutiny for similar purposes. American exporters of insecticides, intended for the extermination of pests afflicting olive groves, would do well to look into the Italian market, which is sure to offer special advantages in a reasonably early time. Extensive experiments have recently been made with the object of securing a successful compound of this character, the mixture being

composed of glycerin, honey, molasses, or other sweet stuff, mixed with water to give it the right degree of fluidity, and charged with 2 per cent of arsenical poison. This was sprayed upon olive trees by men, each of whom were able to treat from 300 to 400 a day, with fairly good results. But the demand for a handy and effective insecticide is strong, and the opportunity is good for both a poison and a spraying machine which have been tried elsewhere with approved success. They should be demonstrated in actual use by operators able to speak the Italian language, and Italians if possible.

The Sicilian sumac crop for 1906 is reported light and prices high, quotations being from 28 to 30 lire per quintal free on the dock at Genoa. This is likely to have an effect on the international extracts market.

The Italian cheese market offers no opportunity for American exporters, but is of interest to the American houses which are endeavoring to produce a homemade cheese with a foreign flavor. American Gorgonzola and American Camembert are now being made in Connecticut and New York in excellent quality, but the exports of Italian cheeses to the United States are slowly increasing. The total volume of this trade with the United States in 1906 was \$135,000 through Milan alone, and the stock was generally hard cheeses of Parmesan type and Gorgonzola. Parmesan is a term applied to all hard and sweet cheeses made in the north of Italy, though but little is made in the vicinity of Parma.

POULTRY AND RICE.

The eating quality of Italian poultry is poor on account of the improper feed and care given the birds, following poor breeding methods. Market prices are high, in spite of the fact that chicken is one of the principal foods of the population. Hence this should afford a good opportunity for American makers of incubators and other appliances of the sort. This is said to be a most difficult line on account of the prejudice of the average Italian farmer against novelties. Introductions should be effected through Italian sources, and preferably through the royal institutes of agriculture. This has already been tried by both French and American exporters, but the introductions were not successful, because, it is said, they were not properly followed up, there being no effort to learn what became of the machines after they were put in the hands of the institutes. It would seem wiser for the American exporter to retain his secrets until such time as he is able to give them practical demonstration in the various markets to which he would introduce his products.

The Italian rice crop shows a diminution in the past five years, the production in hectoliters (2.838 bushels) in 1901 having been 8,880,000 from 189,000 hectares (1 hectare=2.47 acres); in 1902, 8,480,000 from 171,000 hectares; in 1903, 9,660,000 from 186,000 hectares; in 1904, 9,645,772 from 170,636 hectares; and in 1905, 8,583,950 hectoliters from 160,177 hectares. The falling off in the crop has been due to the intentional effort of the planters, who in company with other organized cultivators of various products were convinced that the business was being overdone in Italy. Though the demand is very great, nearly 300,000 quintals a year being shipped into Argentina, the general agricultural interests of the country required that a less direct and absorbing attention be paid to the cultivation of rice. It is stated that the association of planters has threatened to do no cul-

tivating whatever in 1907, but it is scarcely likely that this threat will be literally carried out; however the market will be worth watching by American rice growers.

LABOR CONDITIONS.

It is also said that there have been continual though not open disputes between the planters and their laborers, who are asking for shorter hours and more pay. During 1906 many laborers, being attracted by the better wages and more comfortable conditions offered by the manufacturing interests, deserted the plantations. This caused a temporary rise in wages, and it is said that nearly double pay was offered in order to get a sufficient number of laborers to harvest the last crop. The workers asked for a day of from six to seven hours. This was avoided by a compromise which carried the matter over the harvest season, but the outlook for 1907 is not good. It is also reported that a suggestion has been seriously made regarding Italian capital in South America entering the rice trade there, utilizing immigrant labor from Italy and exporting back to the home markets. The whole case depends on the labor question, which is the essential and determining factor in every phase of Italian life of the present day.

BRITISH INDIA.

RESULTS OF IRRIGATION AND PLANS FOR ITS EXTENSION.

Consul-General William H. Michael, of Calcutta, furnishes the following report covering irrigation and crops and the manufacture and export of a number of British India commodities:

The number of acres under irrigation in the United Provinces of India prepared for spring crops at the end of December, 1906, was 1,207,399, a decrease of 417,571 acres compared with 1905. There is a decrease in the acreage devoted to wheat of 175,708; barley, 57,457; grain, 29,103; other food grains, 32,997, and miscellaneous crops, 203,039. There was an increase in the acreage of sugar cane of 80,783 acres. Wherever irrigation exists the crops are absolutely certain. There is an area of a million square miles in India which in the absence of irrigation no portion of it could be deemed secure against the uncertainties of the seasons and the scourge of famine. Besides this area there are other extensive areas where the rainfall is insufficient year after year and must be irrigated to assure crops. This condition was early recognized by the British Government, and steps were taken to overcome ever-impending disaster and the waste of soil by the use of artificial means of watering the land; and to say that great success has attended the work of the engineers does not tell half the story. Millions of acres have been brought under irrigation by the British, and the lives of thousands of people are saved from starvation each year by this alone.

LARGE EXPENDITURE OF MONEY FOR OTHER SECTIONS.

More than 20 per cent of the total area of British India can be cultivated, and 10 per cent of the cultivable area of the Native States is under irrigation. To make India absolutely safe from famine, at least 35 per cent of the land should be brought under irrigation. This per cent would amount to an area of 74,000,000 acres. Of course this presents a great and difficult problem, but what has been

done gives ample guaranty that the problem will be solved. The present plans when carried out will increase the irrigated area 15 per cent, or bring the total acres up to nearly 60,000,000, which is within 14,000,000 of the required area to place India beyond the reach of famine. It will involve a large expenditure of money, estimated at \$2,400,000 annually, but that will be cheaper than famine, and estimated on this basis the cost in the long run would be nothing. Besides, it is officially known that all of the largest of the existing irrigating systems in India pay their way, and several of them yield a handsome profit to the government. This is true especially of the Cauvery and Guadavary canal systems in southern India. The Cauvery irrigates 1,000,000 acres of land and yields a profit annually of 33 per cent on the cost of the system. The Guadavary system irrigates 750,000 acres and pays a profit of 15 per cent on the cost of the works. The system in southern India includes a scheme for utilizing the water of the rivers Kistna and Periyar, which, when completed, will water 650,000 acres. The canals in northern India, including these in the Punjab, irrigate more than 3,500,000 acres, some of which was barren waste, but is now a garden spot.

JUTE AND PADDY GROWING.

Experiments along scientific lines in growing jute and paddy (rice) have been conducted by the deputy director of agriculture for Bengal, India. The experiment was commenced at Burdwan in 1905, when a crop of paddy, in addition to a crop of jute, was obtained from the same land in the one year. After harvesting the jute crop toward the end of July Aman paddy was transplanted, and the crop was harvested at the same time as the ordinary paddy crop in the beginning of December. In 1906 the experiment of growing paddy in rotation with jute in the same year was repeated. Jute was sown in the second week of May, and the crop was harvested in the first week of August. Aman paddy was transplanted in the third week of August, and the crop was harvested in the first week of December.

In 1905 meteorological conditions were not favorable to a good paddy crop. A yield of 1,280 pounds of jute, followed by an output of 1,200 pounds of paddy grain and 1,521 pounds of straw, was therefore very reassuring. In 1906 no rain fell in April, and as the canal was unable to supply water the jute seedtime was three weeks late. Hence the jute harvest was retarded, and the growing period of the paddy crop was shortened by three weeks. The returns of 1,360 pounds of jute, followed by 1,440 pounds of grain and 1,750 pounds of straw from a coarse paddy, and 960 pounds of grain and 1,520 pounds of straw from a fine variety of paddy, were very satisfactory. The cost of cultivation and manure was \$17 for jute and \$11.50 for paddy. The money value of the output was \$42.35 for jute and \$19 for paddy. These figures do away entirely with the idea that if the area of jute cultivation is increased the people's food supply will be imperiled, for not only is the ryot's food supply assured by the paddy crop, but in the same year a crop of jute is obtained from the same land, and this extra crop will enable the cultivator to obtain other life necessities than those insured by the paddy crop. A net profit of \$32.85 per acre is well worthy of the farmer's consideration.

The average yield per acre of jute under the patriarchal system now in vogue is rather under 1,200 pounds of fiber. The experiments at Burdwan, the governmental farm, prove conclusively that with the right seed planted 4 inches apart in land previously manured with 584 pounds of cow dung or with 58 pounds of castor cake per acre, the yield will be doubled to 2,400 pounds. The report says that the manures "well repay the cost of their application." It will doubtless take a considerable time before the ordinary ryot will be taught scientific farming. A yield of 1,200 pounds of fiber per acre when jute was at an average of \$1.33 per 80 pounds, is an altogether different business from the outlook which the Agricultural Report brings before his vision of jute at an average of \$3.33 per 80 pounds and a yield of 2,400 pounds per acre. The profit per acre under the best condition is stated as being \$58.66.

CULTIVATION AND ADULTERATION OF THE FIBER.

Consul E. H. Dennison, of Bombay, reports that there are two questions in connection with the jute industry of India occupying the serious attention of the Indian government, namely, the extension of its cultivation and the proper means to pursue to check adulteration. The consul continues:

In spite of the fact that the area under jute cultivation has increased over 40 per cent in the last decade, nevertheless the demand has always exceeded the supply, owing to the numerous and ever-increasing applications of the jute fiber, due to its comparative cheapness. As a result prices have risen over 40 per cent in the last five years, and have made its adulteration a most profitable business, buyers being unable to protect themselves against this fraud so flagrantly practiced, the jute frequently being watered up to 30 per cent, sand also being used for adulteration.

The jute-producing districts at present are restricted to the provinces of Bengal and eastern Bengal, and it is said that these will soon have reached the limit of their productive power, and that they will be utterly unable to keep pace with the enormous increase demanded. Investigations have been conducted by the government with a view of finding other districts outside of these provinces which would be adaptable to jute production. There are several districts where the temperature, soil, and rainfall or water supply are similar to the great producing districts of Bengal, such as Malabar, South Kanara, and Ganjam, in the Madras Presidency, and the irrigated district around Poona, in the Bombay Presidency. What will be the result if experiments are tried is impossible to say, but in the event of failure, the plan of finding substitutes offers a most attractive field.

A SUBSTITUTE—HANDLING THE CROP.

India is rich in fiber-producing plants, it being estimated that at least thirty of these are capable of commercial exploitation. It is hoped that investigation will prove that some of these will be discovered to possess properties equal to those of jute, or at least capable of being substituted for jute for some of the purposes to which that article is put. Experts are of the opinion that the most suitable

substitute is *Hibiscus cannabinus*, otherwise known as "Bimlipatam jute," the cultivation of which is chiefly confined to the Madras Presidency. The high price of jute has stimulated this industry, the acreage of which rose from 37,171 acres in 1905, with a fiber output of 80,000 bales, to 68,201 acres in 1906. Its spinning qualities are, however, not so good as jute, but it can be used in place of jute for many purposes.

The adulteration of jute has been the subject of a petition from the Bengal Chamber of Commerce to the government of Eastern Bengal, praying for legislative interference. It has been suggested that an effective way to prevent this adulteration is by the extension of the area cultivated or by increasing the yield per acre by improved methods of preparing the soil, sowing the seed, transplanting, cutting, steeping, etc. With an abundance of jute the temptation to adulterate would be removed, for adulterated jute would be refused, and the evil would vanish.

COCOA AND CHOCOLATE.

ECUADOR.

PRODUCES ONE-FIFTH OF THE WORLD'S PRODUCT.

Consul-General Herman R. Dietrich, in a report from Guayaquil, says that the principal product of Ecuador is cocoa, of which it furnishes nearly one-fifth of the world's production, now estimated at 300,000,000 pounds. Mr. Dietrich furnishes the following particulars:

The cacao tree grows on the warm lowlands and in the valleys tributary to the coast. The valleys adjacent to Guayaquil produce the greatest quantity of any district in the world. In 1900 there were 4,827 cacao plantations or farms in Ecuador, with a total of 58,551,142 trees. The yearly production, in pounds, was: In 1900, 41,134,900; in 1901, 51,311,700; in 1902, 53,621,300; in 1903, 49,921,300; in 1904, 61,339,600; in 1905, 47,225,400, and in 1906, 52,690,500.

Guayaquil cocoa has a specialty of its own, both in shape and aroma, and is easily distinguished from the cocoa of other districts. The lower grades are very strong and coarse in flavor, while the better grades contain a larger percentage of theobroma, making them more valuable. Here the cocoa is divided into two classes, viz, upriver (arriba) and down river (abajo); to the latter class belong the grades known as Machala, Balao, Naranjal, and Tenguel. The cocoa coming from the plantations situated in the upriver district is far superior and always sells at a higher price.

Ecuador's annual exports, in round numbers, amount to \$8,000,000, two-thirds of which is cocoa, an article for which a world-wide demand exists and in the production of which Ecuador enjoys a high reputation. The planting and cultivating of the cacao tree is being carried on more extensively here every year, as it is the general opinion that the article has a splendid future and that the present production is not sufficient to meet the growing demand or consumption. The plantations here are mostly in the hands of natives, many of whom have amassed sufficient fortunes to make Paris their future home. On some of the large plantations very fine residences

are found, although the owners as a rule seldom occupy them, preferring to live in the city. Some are also equipped with extensive narrow-gauge railroads.

EXPORTS AND PLANTATION PROFITS.

The United States is the largest buyer of cocoa from Ecuador, having bought, in 1903, 8,850,130 pounds, valued at \$1,206,790, and in 1906, 10,328,694 pounds, worth \$1,457,384. In Europe, Germany gets the largest share. By statistics, France would appear to be the largest buyer, as a very large amount is sent to Havre for option or reshipment; thus the Ecuadorian custom-house consider it as sent to France. Export duties and shipping expenses are about \$2.50 per 100 pounds; freight to New York, \$15 per ton, of 2,240 pounds. At present cocoa brings about 16 cents per pound; adding export duties and other expenses, plus a commission for buying, makes it cost about 20 cents here f. o. b. The cost of production of cocoa is estimated at about \$4 per 100 pounds, including the interest on the cost of the farm. Taking the present market price of cocoa as a basis, which is \$16 per 100 pounds, the planter makes a net profit of \$12 on every 100 pounds of his cocoa, an enormous profit on his capital invested.

It is estimated that the average yield of a cacao tree is about 1 pound of cocoa per year, giving a planter having a plantation of 50,000 trees approximately 50,000 pounds of cocoa annually. When the cocoa tree is in blossom and the pods are commencing to grow the appearance is beautiful. The flowers, which grow in tufts or clusters, are very small, having five yellow petals on a rose-colored calyx. The seeds contained in each pod vary in number from 20 to 40 and are embedded in a soft, pinky-white acid pulp. The fruit is five-celled, without valves, from 7 to 10 inches in length and 3 to 4 inches in breadth, of an elliptic oval pointed shape. The rind of the fruit is very thick and similar to a very hard, tough apple in substance, and has a slightly sweet taste. The cacao tree that produces this fruit is the *Theobroma cacao* and should not be confused with the coco palm (*Cocos nucifera*) that produces the coconut that yields a liquid and white meat used as food and for making oil.

EUROPE.

GERMAN AND SWISS COMPANIES FORM A PROTECTIVE UNION.

According to Consul-General Richard Guenther a Frankfort commercial journal has received information that the largest chocolate manufacturers of Germany, in conjunction with several of the leading Swiss chocolate factories, are about to combine in order to protect themselves against existing speculations to raise arbitrarily the price of raw cocoa, as also to better regulate the grading and improving the quality of the staple. The newspaper says:

Owing to speculation, the price of raw cocoa advanced 75 per cent within the short period, September-December of last year, thereby disturbing and injuring legitimate trade interests using or dealing in this raw product.

The German chocolate manufacturers taken altogether use more cocoa than any other country in the world. The world's cocoa crop in 1906 is estimated at 151,000 metric tons (at 2,204.6 pounds). In said year 35,260 tons of cocoa passed the German customs for manufacturing purposes (chocolate) and consumption in Germany.

The chocolate manufacturers are also dissatisfied with the manner of grading and selling cocoa at the ports of arrival; the classification and assorting should be more in keeping with their wants and wishes.

Mr. Guenther adds that it is believed that this combination of German and Swiss chocolate manufacturers will eventually lead to a direct trade between them and the cocoa planters of South America and Africa, thus dispensing with the commission houses, brokers, etc.

ALCOHOLIC DRINKS.

ITALY.

OPPORTUNITIES FOR AMERICAN BEER AND TONICS.

Consul James E. Dunning, of Milan, reports that the Italian demand for beer is being rapidly met by the native breweries, which are increasing in number and output. The consul continues:

The demand of foreign residents of Italy is adequately met by German and Austrian importations. There is no promising field for American beers, but the situation apparently offers opportunities for study on the part of American manufacturers of malt extracts and other tonics of that nature.

Ten years ago, for the fiscal year 1896-97, the Italian Government tax on manufactures yielded only \$310,000 from breweries; for the fiscal year 1905-6 the same tax rate yielded \$890,000. In the meantime importations of foreign beers grew rapidly, arrivals from Germany, Austria-Hungary, and Switzerland since 1901 being as follows, in quarts: 1901, 5,563,000; 1902, 6,105,000; 1903, 6,520,000; 1904, 7,535,800; and 1905, 8,610,000.

Reckoning from the tax rate on manufactures, in 1905 there was consumed in Italy 30,465,000 quarts of domestic beers and 8,610,000 quarts of imported beers, a total of 39,075,000 quarts, or $4\frac{1}{2}$ quarts annually for the adult male population. Thus the Italian use of beer is yet moderate, wine continuing to be the national drink. In 1905 Italy produced 2,928,923,000 quarts of wine, of which 98,225,800 quarts were exported. The balance, 2,830,697,200 quarts, being consumed at home gave a per capita consumption of $325\frac{1}{2}$ quarts of wine per year for each man of voting age.

Imported beer pays the Italian tariff tax of 58 cents per 100 quarts, or, for bottled beer, the same rate per hundred bottles. Most of the beer imported comes in barrels, both to meet the demand of a market which seldom calls for bottled beer and to save freight charges on bottled goods. Both "light" and "dark" stock are sold in about equal quantities. The Italian stock is generally light in grade; and while an exceedingly small proportion of the native output scales at 14 in the saccharimetric test, the vastly greater portion scales at 12 and 13 degrees in nearly equal amounts.

TO MEET FOREIGN COMPETITION.

The serious intention of the Italian brewers to meet foreign competition is indicated by the fact that there are already 95 breweries in the Kingdom, all in north Italy. Advertising is conducted on an extensive scale, and there are signs of a reasonably successful effort to pay hotel waiters and restaurant keepers to put the domestic stock forward whenever possible. Brewery methods are of the advanced type, and the best establishments have the Pfaudler fermentation system, with American machinery. A considerable number of experienced German brewers have been brought to Milan and its neighbor-

hood to take charge of the brewing processes. Heating and power plants are generally Milan made. The refrigerating systems are German.

The regular Milan prices for all beers, foreign and domestic, are 6 cents for the small glass holding one-third of a quart; 10 cents for the large glass, holding half a quart; and 12 cents for the "colonna," or extra-large glass, supposed to hold more than the half-quart size. The comparatively high prices is about the only encouraging thing in the field for the American brewer. The present freight rate on beer in barrels from New York to Genoa, which is Milan's port, is approximately \$5 per ton of total weight (beer plus cask).

MARKET FOR MALTED GOODS.

It may be more than suspected that there is an opening for American malt extracts and other "tonics" of that nature. The Italian is a ready tippler of these specially bottled goods, and could easily be taught the benefits of this class of product. The large and unusually well-equipped drug trade of Milan could be worked to advantage on this line. Advertising methods should follow the same lines used in the United States. Specially prepared circulars, however, should be printed in the Italian language. Recommendations are of high value. Doctors are open to reason, and do not hesitate to commend, after they have been given an opportunity for trial. The Italian physique is specially subject to pneumonia, tuberculosis, fevers, and other wasting diseases which this kind of remedy is intended to reach in the convalescent stage.

This trade, if interested, should put itself in touch with the pharmacies of the country. Correspondence must be in Italian, or, for a second choice, in French; and all printed matter, catalogues, folders, etc., must be in Italian also. The one right way to enter the trade is to put an experienced, Italian-speaking man into the field, and give him free rein to work it up as best he knows how, not only with the pharmacies but among the physicians.

GERMANY.

IMPORTS AND EXPORTS OF WINE LARGELY INCREASED.

Consul Walter Schumann, of Mainz, furnishes the following statistics, in hundredweights (English=112 pounds), of Germany's imports and exports of wine and spirits and grapes for 1906, as compared with those of 1905:

Description.	Imports.		Exports.	
	1905.	1906.	1905.	1906.
Wine and must in wood	1,374,153	1,524,941	302,247	289,837
Still wines in bottles	16,710	16,060	193,747	216,048
Red wine for blending	294,575	305,324		
Wine for distilling	32,953	28,507		
Sparkling wine	56,722	61,668	50,756	47,650
Spirits, brandy, rum, etc., in wood	75,999	67,542	17,927	20,222
Spirits, etc., in bottles	1,223	2,633	215,688	323,833
Total	1,851,835	2,006,670	780,365	897,790

The imports of grapes into Germany in 1906 amounted to 2,633 hundredweight, against 1,223 hundredweight in 1905. The exports of grapes were 959 hundredweight in 1906 and 1,441 hundredweight in 1905, a decrease of 482 hundredweight.

WOOD PRODUCTS.

YALU RIVER LUMBER.

VAST FORESTS OF HARD WOOD—NATIVE ENTERPRISE.

In the summer of 1906 Consul-General Thomas Sammons, of Newchwang, made an extended trip into Manchuria, and visited Antung and Mukden in connection with the opening of those treaty ports. A comprehensive report on the mineral, forest, and agricultural possibilities of southeastern Manchuria was made to the Department of State by Consul-General Sammons, from which are taken the following paragraphs on the Yalu lumber district:

Inasmuch as the Pacific coast States of America, and other parts of the United States as well, are heavily interested in the manufacture and sale of lumber, and as some of the manufacturers of American lumber anticipate that the Yalu River district will soon come into sharp competition with such of them as enjoy Oriental sales, it may be well to point out that during the Russo-Japan war, commercially speaking, that industry on the Yalu was practically dead. The exact area of the Yalu River timber belt, together with the total estimated stumpage, is extensive both in the extreme southeastern Manchuria and northeastern Korea. During normal years it is estimated that lumber, mostly 8-foot sticks of 12 to 24 inches square, to the value of from \$1,500,000 to \$2,000,000 gold, has been shipped from Ta Tungkou, at the mouth of the Yalu River, on the Manchurian side, which has heretofore been the chief shipping point for all of the Yalu district output. The logs were floated down the tributary rivers in rafts, and during high tide were landed on the higher levels of the mud flats surrounding Ta Tungkou. They were there assorted, graded, and sold. Large seagoing junks, to the number of from 4,000 to 7,000, carried them away to Chinese and Korean coast points, where in turn they were whipsawed by hand into rough boards and planks.

The average annual native customs collections on the export of logs from Ta Tungkou has been, approximately, 180,000 Antung taels, or about \$128,700 gold. The total customs revenues of Ta Tungkou have averaged 200,000 taels annually, thus showing that by far the commerce of the port was chiefly confined to lumber. During the late war the Japanese army made extensive use of the Yalu River lumber.

FINE PIECES OF LUMBER.

Not all of the sticks or logs from the Yalu River district are 8 feet in length. Some magnificent pieces of lumber were seen at Yungganpo and New Wiju, on the Korean side of the river, where the

Japanese military authorities operate sawmills. At the former place the longest piece, said to be the largest ever seen there, was 20 inches square and 40 feet long. They were free from knots and compared well in surface appearance to the best logs found in the States of Washington and Oregon. These Yalu River logs are, in nearly all cases, hewn square and cut into desired lengths before being placed in the river and subsequently collected into rafts. The grain is found to be finer than that of the fir lumber of the Pacific northwest, but is lacking in the tensile strength of the fir, nor does it have the wearing qualities of the Pacific coast product. The Yalu River wood is soft and of a fine grain, is easily worked, like cedar, but lacks in firmness and tensile strength. For purposes of flooring, for instance, it does not compare with the Douglas fir of America.

What will be the result on American lumber shipments to the Orient when the Chinese-Japanese company, provided for in the additional agreement between Japan and China, and entered into at Peking following the Portsmouth peace conference, is in active operation can not be indicated at present.

CAPACITY OF YALU RIVER SAWMILLS.

In any event, while practically no logs were coming down the tributary rivers in the summer of 1906, the Japanese sawmills at New Wiju and Yunganpo, in Korea, the only ones seen to be in operation, were well stocked, each having several million feet of logs on hand. The New Wiju mill has four circular saws, nearly all showing evidences of the need of skilled mechanical repairs, and one gang saw in operation. The output of this mill is approximately 60,000 feet board measure per day of twenty-four hours. At the time of my visit it was being operated day and night. The Yunganpo mill has less circular saw but greater gang-saw capacity. Its output for twenty-four hours is less than half that of the New Wiju mill.

It was stated by the Japanese in charge of these mills that all of the output was for Japanese army purposes and that none was for commercial use. Therefore no prices could be quoted. As a rule, however, the retail price of lumber in the Orient ranges about twice that quoted at the Pacific coast mills.

AMERICAN MILL MACHINERY.

Although the overseers, chief sawyers, etc., are Japanese, all of the heavy manual labor in these mills is supplied by the hard-working, plodding, easily satisfied Chinese cooly. Parts of the mill machinery came from the United States, although the circular saws were stamped with the name of a Sheffield firm. The capacity of the Yunganpo mill is to be increased, machinery for that purpose having already arrived. The location of the permanent sawmills and the point of shipping logs will determine the center of the Yalu River lumber industry. It is thought probable that the oriental log trade of the Yalu district will cling to Ta Tungkou. This port will be found to possess numerous natural advantages for the purposes of shipping logs coastwise. The logs are placed on the mud flats by the tides at slight expense and effort. But with modern sawmill plants at Antung, New Wiju, or Yunganpo it may be found more advantageous to the parties in control to center the industry at some other point than Ta Tungkou.

TIMBER FOR SOUTH AFRICA.

THE RAND MINING REGION CONSUMES LARGE QUANTITIES.

A British trade journal says that the timber trade of the Rand in South Africa is one worth handling, the wood consumed in the mines reaching in value to about \$2,500,000 in 1905. The consumption of Oregon pine, etc., for shaft timber, amounted to \$1,300,000 in that year.

The journal says that the bulk of the timber orders for the Rand are placed through London houses, although the United Kingdom itself exports no unmanufactured timber. The journal here means no British timber, for in 1906 the United Kingdom exported foreign timber to the value of about \$4,500,000, of which the timber orders for the Rand, placed through London houses, must have formed a large percentage. One-half the orders thus placed are composed of Swedish and Norwegian timber. Of planed and grooved wood used in the Rand 67 per cent is supplied from the Scandinavian Peninsula, 14 per cent from Canada, and 12 per cent from the United States. Of other unmanufactured wood 35 per cent is Scandinavian, 23 per cent American, and 14 per cent Canadian. Of the total wood consumed in the Rand more than three-fifths is received through Delagoa Bay, which is by far the shortest route.

The total direct exports of wood and timber from the United States to all British Africa during the calendar year 1905, the year covered by the British statistics, were: Timber and unmanufactured wood, \$97,747; lumber, \$416,994; total, \$514,741. Comparing these figures for all Africa with the British figures for the Rand alone, it becomes evident that nearly all the American timber consumed in the latter is placed through those London houses referred to in the British report. American exports to the Rand might easily be greatly increased.

DEMAND FOR BRIARWOOD.

SPAIN.

SUPPLY BEING SOUGHT IN MEDITERRANEAN COUNTRIES.

In answer to a letter from an American manufacturer of briar-root pipes requesting information as to the market for briar root in Spain, Consul-General B. H. Ridgely, of Barcelona, replies as follows:

There is no briar-root industry in Spain, and pipes are virtually not manufactured in this country. The comparatively few which are used are imported from England and France. In the district of Gualba there are forests of chestnut trees, and the country people in that region occupy their spare time during the winter in cutting this wood into rough shapes of pipes, which are shipped from Barcelona to Marseille, where they are finished and marketed. I was also advised in the course of my investigation that briar root was largely found in Corsica, and I at once wrote there for information on the subject.

The result was a letter, from which I take the following interesting paragraph: "Briar root is unobtainable just now. The two Corsican manufacturers here have already refused orders from America amount-

ing to 15,000 bags. A commission firm has a great many orders, amounting to thousands of bags per month, but the goods can not be had. There is an immense demand for the article, and I repeat that this can not be supplied in Corsica."

FRANCE AND ITALY.

COMBINATION OF PRINCIPAL EXPORTERS.

Replying to a request for addresses of briar wood exporters Consul-General Robert P. Skinner, of Marseille, furnishes a list of such in France and Italy, which is filed for reference at the Bureau of Manufactures. Mr. Skinner also sends the following information:

A Marseille and two Leghorn firms are said to be the principal exporters. A member of one of these firms tells me that these three concerns have entered into a combination to control prices in the markets where they obtain supplies, and have also agreed upon a division of the export market. Prior to a few years ago competition was active between them, and it was thereupon decided to come to terms as to wholesale prices, and to withdraw in favor of one of their own number from the export markets in which they had hitherto competed. The firms withdrawing from countries in which they had an established business receive a certain compensation in cash from the succeeding firm, measured on the basis of their abandoned trade.

In spite of this combination a considerable number of other houses are in this business, the whole volume of which is not very great when measured in dollars and cents. The value of declared exports of briar wood from Marseille during the calendar year 1906 was \$30,682. The wood undergoes no special treatment before being exported other than thorough boiling, by which it is prevented from splitting.

SUPPLIES AT GENOA.

Consul J. J. Roche, of Genoa, reports that briar wood for the manufacture of pipes is grown in the Italian village of Olba, near Savona, Province of Genoa. It is also grown largely in the districts adjoining Leghorn and Calabria, from whence it is exported to England and France for pipe making. The address of the exporting firm at Genoa can be secured from the Bureau of Manufactures.

FURNITURE FOR MEXICO.

INCREASED DEMAND FOR AMERICAN MAKE AT MONTEREY.

In spite of the fact that there are several small furniture factories in Monterey, Consul-General Philip C. Hanna notices a visible increase in the demand for and the sale of American furniture in that part of Mexico, concerning which he writes:

This is evidently largely due to the present prosperous condition and progressive spirit of the residents of this city who are demanding the best and most modern furnishings for their homes and offices. Carload lots of furniture are arriving from the United States constantly, there being several furniture houses in Monterey who handle American goods exclusively. American-made office furniture is to be

found in nearly every important place of business in the city, and the greater part is of the better class. American rolled-top desks, sectional bookcases, file cases, typewriter tables, and fine office chairs are now becoming common in the leading offices.—[A list of the furniture dealers at Monterey is indexed at the Bureau of Manufactures for the use of exporters.]

Making Willow Goods in Belgium.

Replying to an Oregon inquiry relative to the possibility of a market in Belgium for willow (osier), Consul James C. McNally, of Liege, writes:

The principal users of willow are located in West Flanders and Brabant, especially in Maldeghem, Tamise, Brussels, Braine-l'Alleud, etc. There is a small native growth of osier in Belgium, but the greater part is imported from Spain and the Netherlands. The Belgian wicker work is handmade exclusively, and the better products include work and flower baskets and hampers, linen and wine baskets, toys, cages, cradles, dressmakers' forms, furniture, etc. The rough work includes packing hampers and trunks, baskets for collieries, sieves for gas works, hampers for butchers and bakers, dog and fowl baskets, hampers for the war and navy departments, etc. The value of the yearly finished product in this industry is about \$1,300,000.

Pacific Coast Lumber Industry.

The Indian Trade Journal says that a Bellingham (Washington) correspondent writes:

"The foreign trade for 1906 shows an increase of 105,000,000 feet over the exports of 1905. The heaviest buyers were Australia and China. Australia imported 110,000,000 feet and China took 102,000,000 feet. Australia's increase was 47,000,000 feet, or approximately twice that of China. Siberia's imports grew almost by 5,000,000 feet. Japan's receipts showed a loss of 2,900,000 feet, and it now looks as if trade with that Empire has almost forever passed from the hands of the Pacific coast lumbermen. Japan has invaded the forests of Manchuria with ax and saw, evidently with the intention of providing its own needs and those of China. The loss of the Chinese trade would be a serious matter, for it has been constantly growing. Five years hence the American shipments of lumber to the Chinese Empire may be limited to general cargo carriers, as is true of Japan to-day. Hawaii, Alaska, and the Philippines substantially increased their imports, and the outlook for business in those lands this year is favorable."

MINING.

COAL OPERATIONS.

GREAT BRITAIN.

COAL-CUTTING MACHINES MIGHT BE FURTHER INTRODUCED.

Consul D. W. Williams, of Cardiff, Wales, writes that perhaps nothing reveals the conservatism of British business men better than the slow increase in the coal tonnage mined by machines. The consul adds:

In the entire United Kingdom less than 3 $\frac{1}{2}$ per cent of the coal output was produced by machines in 1905. The number of collieries using machines in 1904 was 249, and in 1905, 295. The number of machines used in 1904 was 755, of which 270 were electrical and 485 compressed air, and in 1905 the number was 946, of which 446 were electrical and 500 compressed air. The coal produced by these machines in 1904 was 5,744,044 tons, and in 1905, 8,102,197 tons. The machines used in 1905 were 580 disk, 188 percussive, 103 revolving bar, 24 rotary heading, and 51 chain machines.

There are 3,126 collieries in the United Kingdom, of which fewer than 10 per cent use machines. In South Wales there is a feeling among mine owners that machines, even when profitable, may be dangerous in the pits, where so many explosions have occurred in the past. The cheapness of labor as compared with America is no doubt another consideration. The opposition of the men may account in part for the use of only 14 machines in all South Wales, notwithstanding the fact that using machines would of necessity reduce the death roll in case of explosion.

American mining machine manufacturers might secure the market by demonstrations showing the safety and efficiency of their machines, and the saving in expense and lives resulting therefrom.

INCREASING SALES OF FUEL AT HIGHER PRICES.

The exports from Cardiff, Newport, Swansea, Port Talbot, Neath, and Llanelli, for January last, were 2,484,559 tons, of which Cardiff furnished over 60 per cent. The exports for January, 1906, were 2,268,213, hence the increase amounts to 216,346 tons, or nearly 10 per cent. The demand comes from all the world outside of the United States, but the three ports taking more than 100,000 tons each were Genoa, Port Said, and Buenos Aires, the latter ranking third, with 105,892 tons. Montevideo took 77,691 tons and Rio de Janeiro 38,871 tons. These large shipments to South America account for the steady growing trade of the United Kingdom in that continent, for all shipping secures two freights. In the same month Veracruz took 3,249 tons of coke and 8,960 tons of patent fuel.

There has been a corresponding boom in prices. The best Cardiff coal, which stood at \$3.28 on January 1, 1906, by February 9, 1907, sold

at \$5.05. All other grades have advanced at the same rate. The quotations are f. o. b., cash in thirty days, less $2\frac{1}{4}$ per cent. Further advances are anticipated and it would seem that American coal might be able to compete at the higher prices in all the Americas. The South Americans usually contract in the early fall months. The 180,000 Welsh miners received another advance of $3\frac{1}{2}$ per cent on March 1, making their average weekly wage about \$9.35. This is checking emigration from South Wales to America and attracting unemployed from other parts of the Kingdom.

MINE IMPROVEMENT.

ADVANTAGEOUS ARRANGEMENT OF RAILS AND RAIL JOINTS.

Consul E. B. Walker, of Burslem, sends a clipping from an English trade journal, from which the following is taken:

When laying an underground tramroad or railway it is exceedingly difficult in the semidarkness of the mine, with the ordinary bridge rail laid on the sleepers with a butt joint, to secure its proper alignment, and considerable care has to be exercised in getting an even joint, which is necessary if a tub is to run over it without any chance of its being derailed. It frequently happens that the nails split the sleeper, allowing a rail to get loose and out of place, and the adjacent rail, remaining rigid, produces a projection against the wheels of the trams or tubs as they pass along, causing them to get off the rails and dislocate the traffic until the defect has been remedied.

To prevent this derailment by constructing the rails at their ends in such a manner as will prevent one rail moving from its adjacent rail has been accomplished in several ways, one being as follows: A piece of the arch or top of one end of a bridge rail is cut out so as to form a groove or a gap about 1 inch long and one-half inch wide, vertically down through the arched portion of the bridge. The opposite end of the rail has a projection formed by cutting away a portion of its end side flanges and welding or squeezing together by suitable means the remaining portion of its side ends to form such projection. When laid in position the projection or tongue of one rail fits in the groove of its adjacent rail, thus forming a smooth and almost rigid joint. A great advantage is that one nail in each rail will suffice instead of two in the ordinary method, each rail receiving the benefit of the nail in its adjacent rail. A further point to be considered is the preservation of sleepers, for by this method they may be used several times, while under the ordinary system it seldom occurs that a sleeper which has had four nails driven in each of its ends and taken out is of any use for relaying.

GERMANY.

PROTECTION OF LIVES IN MINES.

Consul-General H. W. Diederich, of Antwerp, calls attention in the following report to the reduction of mortality in Prussian coal mines:

In view of the recent frightful accident from an explosion of gas in one of the coal mines at Reden, near Saarbruecken, Germany, which killed 150 miners, it is interesting to learn what progress has

been made, during the past twenty-five years, in securing the lives of men employed in Prussian coal mines against the dangers from such explosions. The Prussian authorities have so improved the appliances needed in coal mining and have adopted so many precautionary measures to protect the lives of miners that while on the average 571 miners out of every million annually lost their lives during the decade 1881-1890, this record has been steadily reduced until, in 1905, only 29 perished from explosion by fire damp. This shows what intelligent, systematic, and persistent effort can and does accomplish in saving human lives from danger and accident.

TIN OUTPUT.

STRAITS SETTLEMENTS.

A DECREASE LAST YEAR IN THE FEDERATED MALAY STATES.

Consul-General D. F. Wilber, of Singapore, reports on the tin industry of the Straits Settlements, as follows:

The exports of tin from the Straits Settlements for the first seven months of 1906, as compared with the same period in 1905, showed that shipments to English ports had increased 33½ per cent, and those direct to the United States had decreased 40 per cent. The total exports of tin for 1906, as compared with 1905, show an increase to English ports of a trifle over 9 per cent, and a decrease in direct shipments to the United States of 12½ per cent. This indicates that during the latter part of 1906 American buyers were gradually increasing their purchases of direct shipments and avoiding the so-called optional shipments via England.

The output of tin for the Federated Malay States during 1906 was 48,616 metric tons, against 50,991 tons in 1905. The imports of tin into these States during 1906 was 8,078 tons and in 1905 7,628 tons, mostly from Siam and Netherlands India. The exports from the Straits Settlements, including the ports of Singapore and Penang, to the United States direct, England, Continent of Europe, and adjacent countries for the past two years are shown in the following statement:

Countries.	1906.	1905.	Countries.	1906.	1905.
	<i>Metric tons.</i>	<i>Metric tons.</i>		<i>Metric tons.</i>	<i>Metric tons.</i>
United States.....	15,008	16,879	Netherlands India.....	160	95
England.....	84,434	31,512	Philippines.....	1	6
Continent of Europe.....	7,457	8,482	Siam.....	7	15
China.....	438	438			
India.....	866	1,014	Total.....	58,897	59,157
Japan.....	561	561			

There was a decrease in the total exports during 1906, as compared with 1905, of 260 tons, and a falling off in the output of 2,373 tons. The total exports for 1906 exceed the output and imports by 2,201 tons. Seventy per cent of the gross weight of ore is estimated to represent the amount of block tin which the ore will produce. It is claimed that 75 to 80 per cent is nearer correct, which may account for the difference between output and exports. The hold-over stock from 1905 may account for a part of it. One company

has a large accumulation of old slag which will be resmelted at a good profit. How much of a figure this will cut in the future can not be ascertained. There is no way of telling the amount of tin in stock here at the close of 1906.

GERMANY.

HIGH PRICES CAUSE RENEWED OPERATIONS IN THE ERZ MOUNTAINS.

Consul George N. Ifft reports as follows from Annaberg on the efforts to revive tin mining in Germany:

In the metal markets of the world there is a notable interest in the possible reopening and profitable operation of long-abandoned and supposedly worked-out tin mines, and just now the old shafts, tunnels, and dumps, which are scattered all over the Erz Mountains, both in Saxony and across the border in Bohemia, are being carefully examined by experts, sent out by the Saxon and Austrian governments, and by private individuals and stock companies. The old mines were little more than burrows in the hills. The treatment of ores were by equally primitive methods. With the discovery of great alluvial deposits of tin in other countries—deposits which could be operated by surface diggings—the price of tin fell so low that the little mines of these mountains, with the exception of a single mine at Altenberg, which found bismuth a profitable by-product, were not able to compete, and closed down. During the past year, however, the price of tin has advanced to \$800 and even \$900 per ton. At the same time the available supply of tin has decreased. For example, it was on January 1, 1897, some 40,750 metric tons (metric ton, 2,204.6 pounds), while on January 1, 1906, it was not more than 17,000 metric tons.

Germany is a large user of tin, and imports most of its supply. The total output of the Empire's tin mines equals only about one-fifth the German demand. During 1904 the importation of tin was 14,352 tons, and for the last two years it was probably larger. A private company is now cleaning out the abandoned workings of the old Ehrenfriedersdorf mine, and expects to have it in operation the coming summer, with modern machinery. Government engineers and mining experts from the industrial centers along the Rhine are also to be found all over the Erz Mountains, examining the abandoned tin mines at Bockau, Sofa, Geyer, Seiffen, Schoenfeld, Rittergruen, etc. The Austrian government is showing equal interest in the possible reopening of the almost forgotten tin mines on the Bohemian side of the mountains, and has experts investigating the old workings at Platten, Baerringen, Neudeck, and Joachimsthal.

AUSTRIA'S MAGNESITE INDUSTRY.

LARGE PROFITS FROM MINING—SHIPMENTS TO AMERICA.

A report from Consul-General W. A. Rublee at Vienna states that the very considerable export of calcined magnesite from Austria to the United States, amounting during the calendar year 1906 to nearly 53,000 tons net weight from the Vienna consular district alone, has

attracted general attention to this industry, and new magnesite mines are being located in several parts of Austria. Mr. Rublee thus describes the industry:

At present the Veitscher Magnesitwerke Actiengesellschaft is the principal company operating magnesite mines and is enjoying extraordinary prosperity, its shares, which have a par value of 400 crowns (crown=20.3 cents), now selling as high as 1,140 crowns. This great rise in the company's shares has taken place mainly in the last year and is due to the continually increasing sales of magnesite to the United States.

Magnesite was discovered in the province of Styria, Austria, in the early eighties by Carl Später, of Coblenz, Germany, who had acquired some property near Veitsch, Styria, which was supposed to contain manganese ore. In the course of exploiting this property the yield of manganese was not found to be satisfactory, but another substance was found which turned out to be valuable for fireproofing purposes and was later called magnesite owing to its large percentage of magnesia. Elaborate experiments were made with it by the Alpine Montangesellschaft, one of the principal iron and steel companies of Austria, and its uses were discovered. The first magnesite was produced in small quantities in 1882, but its production on a large scale began in 1890, when shipments were first made to the United States. In 1897 the Veitsch property was organized into a stock company with 2,000,000 crowns (\$400,000) preferred shares and 6,000,000 crowns (\$1,200,000) common shares, the preferred shares to pay 7½ per cent interest, guaranteed. This dividend was soon raised to 10 per cent, and has been paid on preferred and common shares alike for several years past. Carl Später, of Coblenz, Germany, retains the controlling interest in the company and a Vienna bank owns a large part of the remainder of the shares.

Magnesite mines were operated, in competition with the Veitsch mines, at Eichberg, lower Austria, for a number of years but were acquired by the Veitsch company in March, 1905. There are also magnesite mines in Hungary, which operate under a cartel agreement with the Veitsch company. The Veitsch company is acquiring other mines in Styria and is desirous of maintaining a monopoly of the business in Austria. At present, however, there are two or three independent concerns opening up magnesite properties in Austria and in Hungary, and there is some prospect of a lively competition after the furnaces are started within the next six months.

NEW LEGISLATION.

CANADIAN BILLS FOR BOUNTY PAYMENTS—OTHER CHANGES.

Consul E. A. Wakefield, of Orillia, sends the following summary of the bill introduced in the Canadian Parliament as a government measure, providing for a bounty for the production of refined cobalt, nickel, copper, arsenic, and certain compounds:

Three new measures of importance to mining and metal refining interests were introduced by the minister of lands, forests, and mines

on February 13. The first, entitled "An act to encourage the refining of metals in Ontario," provides for a bounty on refined cobalt, nickel, copper, arsenic, and certain compounds, to continue in force for five years. The scale of bounties fixed in the bill is as follows: On refined metallic nickel or refined oxide of nickel, 6 cents per pound on the free metallic nickel or on the nickel contained in nickel oxide. When a bounty is paid on nickel in one form it will not be paid on any other form, and this applies to other minerals. The aggregate of this bounty in any one year must not exceed \$60,000. On refined metallic cobalt or on refined oxide of cobalt, 6 cents per pound on the free metallic cobalt or on the cobalt contained in the oxide of cobalt. The aggregate of the bounty is not to exceed \$30,000 a year.

On refined metallic copper or on refined sulphate of copper, 1½ cents on the free metallic copper or on the copper contained in the sulphate of copper, or on any copper product carrying at least 95 per cent of metallic copper, one-half cent per pound. This payment of the bounty must not entail an expenditure of more than \$60,000 in all. On white arsenic, otherwise known as arsenious acid, produced from mispickel ores and not from ores carrying smaltite or niccolite or cobaltite, one-half cent per pound. The total of the payments of this bounty must not exceed \$15,000.

LIMITED APPROPRIATION—PRO RATA PAYMENT.

If, however, such a large quantity of the ores mentioned is refined that the money set aside for the payment of the bounty is not sufficient for the purpose in accordance with the plan outlined, then the sum mentioned shall be divided upon a pro rata basis, so that no more than the maximum amount specified in each case shall be disbursed.

No person, firm, or company shall be entitled to any of the bounties unless they have been "prepared and are ready and willing" at all times during the period in which the bounty is claimed to smelt, heat, and refine similar ores belonging to other persons, firms, or companies at rates on terms approved by the lieutenant-governor in council, or shall have been ready to purchase at rates approved by the lieutenant-governor in council as current market rates.

The second is entitled "An act to supplement the revenues of the province," and will impose a tax on the acreage of mining properties in the unorganized districts. It also levies a tax on the annual profits of all working mines when the profits exceed \$10,000. The amounts to be exacted in this bill will be inserted later after it is debated in Parliament. The third bill, entitled "An act to amend the mines act of 1906," serves to make clear beyond question a number of sections of that statute.

PRECIOUS STONES.

AUSTRALIAN RESOURCES INCLUDE DIAMONDS AND OTHER GEMS.

Consul F. W. Goding, writing from Newcastle, New South Wales, in regard to the different kinds of gems in Queensland, says:

Rough diamonds have been found lately in Queensland, one purchased weighing 4½ carats, while many others weighing from 1 to 5 carats have been sold. Diamonds so far found in the State have not been of sufficient value to cause excitement, and this, together with

the fact that European and American gem merchants have adjudged them as inferior quality, has discouraged exploration. Sapphires have been found in various places, many of the yellow and green being equal to any produced elsewhere. Recently \$1,250 was refused for a rough yellow sapphire, and a large blue one, with a yellow center, weighing 2½ ounces, brought \$2,500. The true rubies have been found of good color, but are small. Hyacinth zircons, weighing 24 carats, are well known. Zircons, sapphires, topaz, tourmaline, and other gems may be picked out of ballast along the railway lines. Olivine is fairly common.

The pearl is the best known of Australian gems, and for many years thousands of dollars' worth have been secured in Queensland. The oyster fisheries of Thursday Island have been the chief source of supply, but pearls are found all along the Queensland coast. The opal is preeminently the Queensland gem and is found over the entire western districts of the State, the total output amounting to over \$1,250,000. The moonstone, emeralds, agate, amethyst, asteriated, aventurine, bacanite (lydian), bloodstone or heliotrope, cairngorm, cat's-eyes, chalcedony, chrysoprase, citrine, hyaline, jasper, moss agate, morion onyx, plasma, prase, rock crystal, rose quartz, sagenetic, sard, sardonyx, and water bubble complete the list. It may be said that nearly every known gem has been found within the Queensland borders, many of them in commercial quantities.

GREEK MINING STIMULATION.

TWO COMPANIES JOIN ISSUES FOR EXTENSIVE OPERATIONS.

Reporting from Athens, Consul-General George Horton says that the amalgamation of the two leading Greek companies for exploiting domestic enterprises may lead to more energetic development of the mineral and other resources of the country.

These two companies are the Societe d'Enterprises and the Societe des Travaux Publics et Communaux. The former society, which has been absorbed by the latter, manufactures the matches which are furnished by the Greek Government monopoly. The new company will be largely interested in the working of mines. It owns the magnesite mines of Eubœa, where production has increased from 11,000 tons in 1893 to 32,000 tons in 1906, with a growing demand.

It owns also a sulphur mine at Milo and a lignite mine at Coumi, which are being worked, besides having secured options on other mines in Eubœa and Samos. The capital of the company has been increased from 3,000,000 to 7,500,000 drachmas (drachma, 19.3 cents), or an increase of 4,500,000 drachmas, producing 60,000 new shares, at 75 drachmas the share.

MISCELLANEOUS.

THE CONSULAR SERVICE.

UNITED STATES.

CHARACTER AND SCOPE OF EXAMINATIONS FOR APPLICANTS.

On March 14 an examination of applicants for appointment to the consular service was held at the Department of State under an Executive order based on the act passed by the last Congress for the reorganization of that service. At the March examination 21 designations were made from the following States: Alabama, Colorado, Georgia, Kentucky, South Carolina, Tennessee, and Wyoming, each 1; North Carolina and Virginia, each 2; Illinois and Pennsylvania, each 3. The States named are at present below their proportionate representation in the consular service. A candidate from Oregon, formerly a consular agent for five years, came to Washington under a mistaken impression that he had been designated for examination. In view of the long journey, he was examined to determine his eligibility for appointment at a future time.

The examination established under the Executive order is oral and written. The object of the first is to determine the candidate's business ability, alertness, general contemporary information, and natural fitness. The examinations are divided into eight subjects, which, with their relative weights, aggregating 20, are:

- | | |
|---|--|
| 1. Modern languages—French, German, or Spanish—4. | 5. American history, government, and institutions—2. |
| 2. Natural, industrial, and commercial resources and commerce of the United States—4. | 6. Political and commercial geography—2. |
| 3. Political economy—2. | 7. Arithmetic—1. |
| 4. International, maritime, and commercial law—3. | 8. Modern history (since 1850) of Europe, South America, and the Far East—2. |

In modern languages candidates are required to make a close translation into idiomatic English from French, German, or Spanish, according to the examination authorized to be taken. They are also required to translate from English into one of the three languages named a short business letter. This letter and the paragraphs to be translated are furnished in printed form. Modern languages form the first subject.

The character and scope of the examinations will be seen from the following summary of those held on March 14.

RESOURCES OF THE UNITED STATES.

The second subject included the following questions:

1. What causes have contributed to the growth of the iron and steel industries in the United States?

2. In 1855 the price per barrel of flour in New York was \$12; at the close of the century it was less than \$5. How was the decrease in price brought about?

3. (a) What is the rank of the United States in agriculture, mining, manufacturing, and merchant marine? (b) What is our rank in export trade?
4. State some of the requirements for the development of a large foreign commerce, and what countries are our chief competitors for foreign trade.
5. Name the States or cities as called for below which lead in the production or manufacture of the following:

Wheat (two States).
 Rice (two States).
 Tobacco (two States).
 Meat products (two cities).
 Leather (one city).
 Glass (one city).

Gold (two States).
 Silver (two States).
 Sheep (two States).
 Agricultural implements (one city).
 Boots and shoes (city).
 Cotton goods (State and city).

POLITICAL ECONOMY.

Under the third subject were the following:

1. (a) Define political economy. (b) Name three great works on this subject.
2. Of what advantage to a consul is a knowledge of the principles of political economy?
3. State some of the principal reasons for taking at stated times a census of population and industries, especially with reference to manufactures and agriculture.
4. (a) State some of the advantages of foreign exchange in canceling indebtedness between merchants of different countries. (b) Why is exchange on London or New York preferable to exchange on smaller cities?
5. What are the principal reasons for the development of trade between different countries?

INTERNATIONAL, MARITIME, AND COMMERCIAL LAW.

The fourth subject included the following questions:

1. Define international law, and distinguish between public and private international law.
2. The United States having declared its neutrality in a given case, may an American citizen build, equip, and sell a war vessel to either belligerent? If so, under what conditions?
3. What were the rules adopted at the Declaration of Paris?
4. (a) Define citizenship and domicile. (b) What are the effects of naturalization upon the status of the individual (1) in the country of his birth; (2) in the country of his adoption; (3) in other countries? (c) Discuss the nationality of married women.
5. (a) Give three conditions essential to the validity of a treaty. (b) Distinguish between a de facto and a de jure government.
6. In general, what papers are necessary to determine the nationality of a vessel?
7. Define the status of (a) public vessels and their crews while in foreign waters; (b) private vessels and their crews while in foreign waters.
8. What is meant by (a) salvage, (b) demurrage, (c) general average, (d) bottomry?
9. What is (a) a bill of lading, (b) an invoice, (c) a power of attorney, (d) a draft?
10. (a) What is a foreign bill of exchange? (b) Name the three original parties to a bill of exchange. (c) Discuss briefly the liabilities of an agent and his principal.

HISTORY, GOVERNMENT, AND INSTITUTIONS.

The fifth subject included the following:

1. How, when, and from whom was (a) the contiguous territory of the United States acquired; (b) the noncontiguous territory?
2. (a) By what treaty was the war of 1812 with Great Britain terminated? (b) When was that treaty signed and when was it ratified? (c) What important battle was fought after the treaty was signed, and by whom were the opposing forces in that battle commanded?
3. How is the President of the United States chosen, and what are the constitutional requirements for eligibility to the office?

4. Name the Executive Departments of the Federal Government and state the principal functions of each.

5. Where in the American Government is the treaty-making power vested?

POLITICAL AND COMMERCIAL GEOGRAPHY.

1. What countries, independent or otherwise, border on the Mediterranean Sea?

2. Under what sovereignty are the following places: Jerusalem, Hongkong, Vladivostok, Montevideo, Havre, Calcutta, the Azores, Yokohama, Veracruz, Mukden, Johannesburg, Christiania, Antwerp, Edinburgh, Halifax, Tangier?

3. What country produces the largest supply (a) of cane sugar, (b) of beet sugar? (c) Name the country which refines the most petroleum, (d) the one which is the largest exporter of raw silk, and (e) the one which makes the most wine.

4. What is the principal export of (a) Argentine Republic, (b) Brazil, (c) Chile?

5. (a) Name the bodies of water through which a ship would pass on the shortest all-water route going from Bombay, India, to Dover, England. (b) Name the two chief exports the ship would carry to England.

ARITHMETIC.

Under the seventh subject, arithmetic, a tabular statement of exports, in tons, of articles from the Straits Settlements to the United States, England, and the Continent of Europe was given, the candidate being required to make the additions and give grand totals. The candidate was also required to make an itemized statement of the following account as it should appear taken from the books of one of the parties, showing balance as it appeared when the account was closed:

During the month of May, 1906, Asa Asher had the following transactions with Ashton & Co.: On May 1 he owed them a balance on account of \$79.70. May 3, they sold him 46 bu. corn at 47½ ct. per bushel. May 8, he gave them a note for \$175.80. May 12, he sold them 8½ doz. chickens at 38 ct. each. May 17, they sold him a plow for \$36.75. May 22, he paid them \$10.75 in cash. May 24, he completed 18 days' hauling for them at \$4.50 a day, and was credited on account by them. May 27, he bought of them 4 kegs of syrup, each containing 10 gals., at 37½ ct. per gallon. May 28, he sold them 2,416 lb. hay at \$14.50 per ton of 2,000 lb. May 31, they gave him a note of \$750, which he accepted at a discount of \$11.25.

MODERN HISTORY.

Following were the questions relating to history of Europe, South America, and the Far East since 1850:

1. Briefly describe the features which have been noticeable in the government and development of South American republics.

2. With what countries and events do you associate the following: Alexander II; Bismarck; Marquis Ito; Dom Pedro; Cecil Rhodes; Thiers; Garibaldi; Maximilian?

3. Briefly describe the form of government of the German Empire.

4. What causes led up to the Russo-Japanese war, and what were its results?

UNITED KINGDOM.

PRACTICAL WORKING OF THE BRITISH HOME-TRIP SYSTEM.

Consul William H. Bradley forwards a clipping from the Manchester Guardian, as showing the practical working of the visits of British consuls to the chambers of commerce or commercial clubs of home cities. Mr. Bradley suggests that this interview with the consul gave suggestions, showing his ideas of how trade could be

increased in Bulgaria, which might be of use to the American people. The article says:

Members of the Manchester Chamber of Commerce specially interested in Bulgarian trade assembled to meet Col. P. H. H. Massy, His Majesty's consul at Varna, and exchanged views with him on trade matters. The chairman said there was a mill at Varna, built by British capital, which was a serious competitor with Manchester.

Colonel Massy did not think the local competition was anything to be feared, because the more it ministered to local prosperity the better would it be for this country. In the matter of tariffs, he had found the authorities very fair and willing to render the entrance of British goods as easy as possible. English traders had an advantage in this respect, that they sent goods of a superior quality which were admitted at the rate charged for the inferior goods of certain other nations. Our trade, in spite of the high tariff, was in a flourishing state. As to the Varna mill, in no case did it undersell English yarn. Speaking generally, therefore, he did not think any local competition interfered with British trade.

Mr. Angeloff (a Bulgarian resident of Manchester) expressed the opinion that the competition was of some importance. The raw material was admitted duty free, and that must make a great difference in the cost of production. The chairman repeated his belief that the establishment of a mill at Varna had interfered with business in Manchester. It was stated that the Bulgarians admitted machinery free of duty.

Colonel Massy thought the prospects of trade in Bulgaria were distinctly good. As traders we should, he said, keep our eye fixed on the Balkan States, for if we did not other nations would step in and secure the trade. All kinds of agricultural implements were in demand at present—to a small extent, but an increasing one. "Find a good agent and you will have an excellent trade." Indeed, all kinds of equipment would be in very great demand very soon. The towns were raising small loans to perfect their drainage or get the electric light. It was an excellent thing, Colonel Massy thought, for heads of firms to take a holiday trip through the country and see for themselves what the possibilities were. He had known men who had done excellently for themselves in that way. "Bulgaria," Colonel Massy added, "is in an increasingly flourishing state and in an excellently governed condition. It is as easy and as safe to travel in Bulgaria as it is in England. I have been all over without escort, off the line of railways and along the frontiers, and I never had the slightest difficulty." The Bulgarian and Balkan States were anxious, he added, to come into trade relations with this country. They wanted to send us poultry, eggs, and flesh meat, for which purpose they would willingly subsidize a direct shipping service. They would also like to establish an Anglo-Bulgarian bank.

CONSULAR REORGANIZATION.

GREATER ATTENTION TO BE PAID TO COMMERCIAL WORK.

Lord Fitzmaurice, Under-Secretary of State for Foreign Affairs, at a recent London Chamber of Commerce dinner spoke at length on the reform in the consular service, as reported in the British newspapers:

It is now proposed, he said, that a member of the mission staff shall during his appointment at the mission take charge of the commercial work, receiving special remuneration on this account. Steps will also be taken to facilitate the discharge of the commercial duties of the consuls by reinforcing their staff wherever required. The commercial attachés are in future to have their headquarters in London and devote their time between special investigation abroad in the interest of British exporters, work in the board of trade or commercial department of the Foreign Office, and visits to manufacturing districts in the United Kingdom. Continuing, his lordship said that the position of attachés in a remote country, as in China, Turkey, etc., where special qualifications were necessary, and in Paris, where the presence of the commercial attaché was indispensable, remained unchanged.

COMMERCIAL ATTACHÉ TO BE A NATIONAL TRAVELER.

The commercial attaché would therefore become a national commercial traveler, and would be able to devote the whole of his time to extending his experience of

nome and foreign conditions, the routine portion of his present occupation being left to the specially responsible commercial secretaries in the foreign missions and to the consuls. The principal changes which were involved by the introduction of this new system were as follows: (1) The post of commercial agent in Switzerland and the United States of America, in Russia, and Central America will be abolished. (2) The present commercial agent in Russia will be made a commercial attaché. (3) The latter and the three commercial attachés now at Vienna, Berlin, and Madrid to have their headquarters in London. (4) The current commercial business of the diplomatic mission will be carried out under the superintendence of a specially selected member of the diplomatic staff, who will be designated secretary in charge of commercial matters, and who will receive allowances varying in accordance to the importance of the post. No changes will be made in the present arrangements at Peking, Tokyo, and Constantinople, and Sir Henry Austin Lee will remain at Paris as commercial attaché. These changes have been sanctioned by the Treasury, and will come into force on April 1 next.

Lord Fitzmaurice stated further that by the new system of commercial attachés information will be furnished on all commercial matters, all tariff questions, and other subjects of trade interests would be watched, and though it would not be possible to push the interests of any private firm, substantial assistance would be given to the interests of all British subjects in relation to foreign trade. The Government also attached great importance to the coming Colonial Conference [to be held in April in London and attended by the premiers of British colonial possessions]. Another improvement would be the joint editing of trade reports. There was a great awakening of activity in the consular service, and if they had also an active board of trade and active manufacturers they would obtain the highest results.

WASTE BY-PRODUCTS.

THE QUESTION OF THEIR UTILIZATION IN BRITISH COLUMBIA.

Referring to a report of Consul L. E. Dudley, of Vancouver, published in Daily Consular and Trade Reports on January 22, regarding waste by-products, the consul now writes:

In reply to this report, I have received communications from several manufacturing concerns of large capital in the East. I took these letters to the secretary of the local board of trade. At first he was inclined to take the position that it was a matter with which his organization would not be able to deal. Subsequently he decided to hold the papers and confer with the officers of the board and others. I submit herewith a copy of a letter received from the secretary of the board of trade:

In regard to by-products possible to be recovered from our waste materials, I have been making some inquiries and am pleased to find that there is now in course of erection a first installation for the manufacture or rather extraction of resin and turpentine here in Vancouver by a corporation. [Name on file at Bureau of Manufactures.] I fear that the small stuff burned in the destructors is too flimsy and bulky to be utilized to advantage, as after laths and firewood have been taken out only waste remains.

As to the fish-guano business, here is unquestionably a large field, but one which must apparently come hand in hand with the development of the still almost untouched deep-sea fisheries of these coasts. When the preservation of the food fishes is more actively realized, the wolves of the sea will be looked after better. Recently a former Vancouverite has been in Vancouver with, I understand, carte blanche from New York people to make contracts for the purchase of fish guano and such like, but very little is actively done. One company has an establishment on the Fraser River, and another is extending operations on Vancouver Island. The utilization of herring for fertilizer has been stopped by the Government. Regarding tar, the corporations who own the coke ovens would no doubt be open to deal with responsible people, but we have no connection with them here.

MEDICAL TOPICS.

PHARMACIES OF TURKEY.

SMALL SHARE OF THE UNITED STATES IN THE TRADE.

Consul-General Edward H. Ozmun, of Constantinople, reports as follows concerning the use of toilet and medicinal articles in Turkey and the very small share of the United States in the trade, as compared with European countries:

The importation of perfumery and toilet articles into Turkey, where the purely native element of the population sacrifices almost every home comfort for show of finery and elegance, is very important. Good authority estimates the value of perfumery and toilet soaps imported yearly into Constantinople alone at \$200,000, while the total imports into the Empire is estimated at \$1,000,000, of which 60 per cent comes from France.

Soaps to the amount of about 1,800,000 pounds are imported annually into Constantinople alone, of which about one-fifth is composed of toilet soap, the remainder being ordinary soap. An average quality, which has a large sale among the middle classes, is retailed at about 6 cents a cake. More expensive qualities have smaller sales in proportion as the price increases. Inferior qualities are hawked in the streets at 2 cents per cake.

Handkerchief perfumes are very extensively used, especially by the women, while refined and delicate perfumes have a limited sale. The greater portion are heavy, with a basis of musk. The heavier the musk foundation the more they are appreciated. Among toilet waters eau de cologne holds the first place, to the extent that "cologna" is a generic local term for toilet waters. Hair dyes are very much used.

FRANCE SUPPLIES PERFUMES IN LARGEST QUANTITY.

The principal importers of perfumery, with headquarters in Paris, supply most of the retailers in the capital, but their imports reach every city in the Empire. Several other houses in Constantinople are large wholesalers. Perfumery is run as a side line by all the large fancy stores, in bazaars, groceries, pharmacies, barber shops, etc. In fact, it is an article which is sold everywhere. After France, in order of importance, comes Germany, with a cheaper article; then Austria, Italy, and England. American toilet soap has made its appearance in Constantinople, but no other American toilet requisites appear here. As in all other articles in this market, it is the cheap article that has the greatest sale. At the same time there is considerable sale of articles of medium and superior qualities. Particular attention must be called, however, to the careful and rich appearance of even the cheapest articles, which has very much to do with their sale. Fancy soaps made up three packets in a box, and handkerchief perfumes of the cheapest description, are tied with silk ribbon and fancy wrappers, with gold-paper seal. In perfumery

it is customary to allow four and even six months' credit. For cash payments 3 per cent discount or more is allowed. [The various importers in and dealers of toilet articles are listed for commercial reference at the Bureau of Manufactures.]

Attar of roses, which is the base of many toilet preparations, is an article of export from this country and Kazanlik, Bulgaria. The annual product of Bulgaria is about 6,500 pounds. The total export of attar of roses from Constantinople to the United States during the year ended December 31, 1906, amounted to \$38,907.

MEDICAL SPECIALTIES.

There are some 400 pharmacies in Constantinople. While competition within certain limits is beneficial, when carried to excess it may be, in unscrupulous hands, positively dangerous. A local pharmacist has expressed himself somewhat as follows: "Physicians, with the fear of having their prescriptions transformed by doubtful dispensers, are wont to order medical specialties which offer guarantees of careful preparation." Although this may be an exaggerated view, there is nevertheless a growing demand for medical specialties. At the same time, judicious advertising plays an important part in the demand for patent medicines. As late as ten years ago advertising had little or no effect on the sale of such specialties, but this is no longer the case, and the importance of keeping before the public in an intelligent manner by means of advertising in the principal local journals, by posters in the streets, stations, and public places, is increasing and becoming recognized by those interested. It is an absolute necessity in introducing and creating a demand for a new specialty, and for the same reasons it is necessary, when once introduced, to keep the specialty continually before the public.

GOOD ADVERTISING RECOMMENDED.

In such advertising one must not lose sight of the cosmopolitan nature of the population of Constantinople, and yet must appeal in a very clear manner to the native element, to whom a mere display of printers' fancy type often means nothing whatever. Almost without exception every specialty now sold on this market has some advertising matter in Turkish in the shape of a wrapper with "directions for use" and a statement of the ailments for which the specific is beneficial. This is undoubtedly an attention which appeals to the native, and the purchaser is pleased that the manufacturer considers it worth while to address him in his own language. This advertising must, however, be well done, and it is advisable to have the handwriting of a calligraphist reproduced by lithography or zincography instead of that often employed, as when the advertisement is printed abroad it is generally set up in a type of half a century ago, and has an effect quite the reverse of that intended, being as difficult to read as a document written with our old-fashioned s's resembling f's, with confusion of v's and u's, and the decipherer classes the remedy as being on a par with the badly worded and impossible advertisement. This is of more importance than may be imagined, and is the secret of the success of many modern French preparations.

It must be remembered that there are certain restrictions against the importation of chemical and pharmaceutical preparations and medical specialties in the new law on analysis in customs of June 3, 1905. [The features of this law were published in extenso in *Daily Consular and Trade Reports* of June 21, 1906, copies of which may be obtained from the Bureau of Manufactures.]

DRUGS IN SWITZERLAND.

AMERICA'S SHARE OF THE TRADE INCREASING.

Consul R. E. Mansfield, of Lucerne, reports that the import trade in drugs and chemicals in Switzerland is divided with the United States, Great Britain, and Germany, about one-fifth of the total coming from America. Mr. Mansfield continues:

Of the materials employed in compounding prescriptions England supplies the largest per cent. The greater part of supplies in the way of mineral waters, scents, rubber goods—such as bottles, syringes, and apparatus for treatment of the throat, nose, etc., commonly kept in stock in drug stores—come from Germany, while patent medicines, proprietary and toilet articles, fine soaps, tooth paste, powder, etc., as well as many of the best-known and standard remedies, come from the United States. A considerable per cent of the chemicals used in the trade in Switzerland are manufactured in the country.

A Lucerne druggist stated recently that about one-half of his business was with American tourists, and that by calling for articles of American make they have created a demand that requires every drug shop in the Swiss cities along the main lines of travel to keep in stock various articles manufactured in the United States. Much of the trade in proprietary medicines imported from the United States is secured by manufacturers traveling in Europe, who combine business with pleasure by soliciting trade in their respective lines. This is evidence of the efficacy of personal solicitation by representatives who are familiar with their business and the merits of the articles offered to the trade. The drug business in Switzerland is conducted very much as it is in the United States, and the drug stores resemble in appearance those of America, even to the labeled bottles and advertisements. The Swiss stores possess one feature, however, that is not common in like establishments in the United States, and that is they carry a general stock of bottled whisky, brandy, gin, and wine.

DYSENTERY SERUM.

EXPERIMENTS SAID TO HAVE BEEN VERY SUCCESSFUL.

Consul-General Richard Guenther of Frankfort, Germany, furnishes a translation of an article from a Vienna newspaper, touching on a newly discovered remedy for treating dysentery. The article follows:

At the last session of the Medical Association the regimental surgeon, Dr. Robert Doerr, reported on a new serum which was prepared at the Serotherapeutic Institute, and which has been used effectively against dysentery. The new serum, which is hypodermically admin-

istered in doses of 40 cubic centimeters, within a few days causes a disappearance of the symptoms of the disease.

Dysentery is caused by two species of bacilli, looking exactly alike, but differing in the symptoms caused by them. The bacillus found in Japan in 1898 by Shiga, discovered two years later in Germany by Kruse, and the bacillus found in the Philippines by Flexner, are similar in appearance and effects. The existence of both of these bacilli in Austria has been demonstrated. The Shiga-Kruse bacillus was found by Mueller in dysentery cases in South Steiermark; by Doerr in cases in the Brucker camp, Vienna and Krakau; by Leimer and Jehle in cases at the children's hospitals of Vienna, who also found there the Flexner bacillus. Experiments for finding a serum against dysentery have been continued for many years. At the Serotherapeutic Institute of Vienna Prof. Richard Paltauf, director of the Institute, Prof. Rudolf Kraus, and Regimental Surgeon Doerr were the principal experimenters. The reports of Doctors Mueller and Doerr induced the institute to make further researches, and it was ascertained that the Shiga-Kruse bacillus, which occurs almost exclusively in European epidemics, secretes a poison the same as other bacteria. The poison can be procured from the bacilli by filtration. If this poison is diluted and injected into animals, antitoxines are formed in the fluids of their tissues.

PROTECTION TO LIFE.

Through numerous experiments the value of this serum was proven. It was found that it protected animals against infection. At the meeting of natural scientists at Meran in September, 1905, Doctors Kraus and Doerr reported with reference to their animal experiments. The two physicians had injected dysentery bacilli into rabbits. The animals became sick with the disease, which with them does not affect the great gut as in man, but is shown in a characteristic paralysis of the hind extremities. If left to their fate they died within a few days. If, however, dysentery serum obtained from the blood of horses was injected, the symptoms of the disease disappeared and the animals recovered in all cases.

After the value of the serum had been demonstrated by these experiments with animals it was employed at the end of 1905 in cases of dysentery of human persons. The first patients treated were soldiers; they were discharged as cured. Within twenty-four hours after the injection the pains ceased, the general condition became better, the fever disappeared, and the soldiers soon entirely recovered. The experiments made in civil hospitals were also successful.

Professor Paltauf then requested the surgeon-general, Doctor Uriel, to grant permission to treat soldiers of the garrison at Krekau, suffering with dysentery, with the new serum. The results were again remarkable and after a while favorable reports came also from other experimenters. Doctor Karlinski reports cures from Bosnia with this new serum, and Doctor Rosculet, from Roumania. Russian doctors report that they treated some of the severest cases of dysentery in Manchuria during the Russo-Japanese war with the new serum.

THE SERUM NOW SOLD FOR GENERAL USE.

The State Serotherapeutic Institute resolved to sell this dysentery serum for general use, and more than 1,000 vials have been sold. The

reports since received with reference to results have been in every way favorable, and the applause given to the statements of Doctor Doerr was an authoritative acknowledgment of the success that has again been achieved by the Vienna Medical School.

For the general public an apparently minor but nevertheless important fact will be of interest, namely, that the Vienna physicians succeeded in keeping their work secret. In consequence no false hopes were raised by uncertain results, which might finally have proven a failure, as has often been the case of late with new remedies. The most remarkable fact is that in spite of the use of the new serum the veil of the secret was not lifted. It is true that Russians as well as the Japanese have asserted over and over again that they had no dysentery in their armies, but hardly anybody believed it, least of all physicians.

TREATMENT FOR TUBERCULOSIS.

OPEN-AIR METHOD IN FRANCE IS SAID TO BE EFFECTIVE.

Consul Chapman Coleman, of Roubaix, furnishes the following report on the cure of tuberculosis as practiced by an eminent French specialist:

Doctor Brunon affirms that continuous open-air treatment is the most important curative factor in tuberculosis. His treatment was applied to 100 children affected with the malady cared for at the general hospital of Rouen during a period of five years. These children, whose ages varied from 2 to 16 years, were under observation from 1901 to December, 1906. Their individual sojourn at the hospital varied from one month to two years. These patients were distributed among four groups. The first comprised 24 children but very lightly affected; the second 33 children of good general physical condition afflicted with the malady, unaccompanied by lesions; the third 36 children with open tuberculosis—that is to say, attended with lesions; and finally, a fourth category of 6 children presenting very grave conditions.

Doctor Brunon's method of treatment is very simple. The children pass the day in open galleries, fully exposed to the air, in which they even take their meals. These galleries constitute a sort of hospital sanatorium, called by Doctor Brunon an "aerium." From 8 a. m. until 4 p. m. in winter, and until 8 p. m. in summer, the children are in the open air, whatever the condition of the atmosphere. At night they sleep in capacious dormitories in which some of the windows are kept constantly open. The most painstaking cleanliness is observed in regard to the children themselves and as respects all parts of the establishment. Frequent bathings, the washing of the hands before meals, and other precautions of rigorous hygiene have, so to speak, suppressed contagion in all apartments. In three years, says Doctor Brunon, no more than three cases of broncho-pneumonia, and not a single case of whooping cough have occurred.

FRESH AIR DAY AND NIGHT.

The importance of the constant "aeration" and scrupulous cleanliness insisted upon and practiced in this establishment has been illus-

trated by the circumstance that in cases where children have been temporarily transferred to the country or to the seaside amelioration of their condition has been arrested, owing to the windows of the sleeping rooms in their new homes not having been kept open. From the alimentary point of view, cooked meat in but small quantities, cooked fruit in abundance, and vegetables rich in starch should be given; as a beverage, water; in general, no overfeeding.

The results of this very simple treatment are most suggestive. The children accustom themselves to this open-air life very quickly. The first curative results are most rapid; the later, on the other hand, are but slowly reached. In the very first days of the treatment appetite returns and fever and coughing diminish. But, although the general condition of health may have become good and the child have gained in weight, the physical symptoms are modified but slowly. The "râles" (noises emanating from the air passages) disappear only after a treatment of several months. An enduring amelioration, equivalent, so to speak, to a cure, can only be secured in severe cases at the end of two or three years. The cure is readily attained with children but lightly affected. Entire cure has been attained with several children bearing very profound lesions.

EXPOSITIONS AND CONVENTIONS.

FRANCE.

PLANS FOR EXHIBITS AT THE PORT OF BORDEAUX.

Supplementing his former reports on the International Maritime Exposition to be held in Bordeaux, from May to November, 1907, Consul D. I. Murphy writes:

Great progress has been made in the construction of the several buildings, and the contractor promises to have them all ready some time before the opening, on May 1. The grand palace and the main buildings, covering an area of about 10 acres, are all so connected by arcades that they form practically one great building.

The exposition is designed to commemorate the centennial anniversary of the successful application of steam to navigation by Robert Fulton. The motive for the celebration of this great event may be found in the fact that in 1803—four years before his success on the Hudson, with the *Clermont*—Fulton made his initial essays in steam navigation in France. Fulton's experiments appear to have been at first with a submarine boat, which he christened the *Nautilus*, and in which he was submerged for five consecutive hours on one occasion in 1801. This demonstration appears to have been at Brest, in the presence of the French Admiral Villaret, and it is recorded that by the use of torpedoes Fulton managed to blow up a boat in the harbor.

With his second submarine boat he gave a demonstration on the Seine at Paris, on which a commission appointed by Napoleon Bonaparte reported favorably. Nothing, however, came of the submarine boat, and it was subsequently, in 1803, that Fulton treated the Parisians to the spectacle of a small boat propelled by steam on the Seine with two bateaus tied astern. A chronicler of that time describes it as "*un bateau mû par des roues comme un chariot*" (a boat moved by wheels like a chariot).

SCOPE OF THE EXPOSITION.

The exposition, it is officially stated, is to be international in character and to illustrate the history of navigation. The world's marvelous progress in the art of shipbuilding and the science of navigation is to be shown by a collection of models of every kind of water craft, ancient and modern. All that pertains to ocean geography and all industrial and artistic products having relation to maritime affairs are to find prominent place. There is to be a congress of naval architects, and there are to be lectures on science, art, industry, commerce, and political and social economy. There are also to be boat races on the River Garonne, in which the management hopes that competing crews from several nations will take part.

The grand palace is to be devoted to the illustration of maritime history, ocean geography, ancient and modern painting, sculpture, architecture, and horticulture. Materials for the construction of boats and ships, diving and life-saving apparatus, fishing appliances, ship's provisions, sea food, and motor machines (land and water) will have considerable space devoted to their exposition. In the place allotted to the navy there is to be a special exhibit of submarine boats, guns, torpedoes, ships' armor and equipment. Aeronautics, electrical apparatus, signals, wireless telegraphy, telephones, pumps, refrigerating apparatus, heating and ventilating appliances, port and harbor works, sea and river sports, art bronzes, lace tissues, linen and tapestry, traveling articles, glassware, porcelains, china, cutlery and musical instruments are also to have spaces devoted to them.

This exposition should afford excellent opportunity for American manufacturers to show the superiority of their products and extend their trade. Manufacturers of motor boats, light motors and dynamos, canoes, lifeboats, diving, and life-saving appliances, fishing apparatus, optical and nautical instruments, or those who make anything which relates to navigation or ships, will find a good chance here to advertise their goods and increase their business. [A ground plan of the exposition and the regulations forwarded by the consul will be loaned by the Bureau of Manufactures to interested persons.]

An appropriation of \$15,000 was made at the recent session of Congress "to enable the Government of the United States to participate in the International Maritime Exposition to be held at Bordeaux, France, from May 1 to October 31, 1907."—B. M.

BELGIUM.

CONGRESS FOR PROTECTION OF CHILD LIFE.

The Department of State has received from the Belgian Minister announcement of the Second International Congress of "Gouttes de Lait"—Protection of Child Life—which will be held at Brussels from September 12 to 16, 1907.

This congress is to be held in accordance with resolutions passed at the general meeting of the first congress of "Gouttes de Lait" at Paris in 1905. There will be two sections. The first will be concerned with philanthropic and social questions; the second with the scientific problems of infant hygiene. The congress will consist of

Belgian and foreign members who have subscribed beforehand the sum of 20 francs (\$3.96). Any institution for the protection of child life may be represented by a delegate in whose name the subscription should be paid.

An exhibition of infant hygiene will be organized and opened during the congress. Copies of the announcement and programme of the congress, with a list of patrons, are in possession of the Bureau of Manufactures. Communications and inquiries concerning the congress should be addressed to the general secretary, Dr. Eugene Lust, Rue de la Limite, 27 Brussels.

GERMANY.

SCHEDULE FOR HYGIENIC CONGRESS—EXHIBITIONS PLANNED.

A. M. Thackara, consul-general at Berlin, advises that for the purpose of facilitating discussions before the Fourteenth International Congress for Hygiene and Demography, to be held at Berlin from September 23 to 29, 1907, eight sections have been formed, each with its president, vice-president, and secretary. They are:

Hygienic microbiology and parasitology; dietetic hygiene, hygienic physiology; hygiene of childhood and schools; professional hygiene and care of the working classes; combating infectious diseases and care of the sick; hygiene of dwellings, townships, and waters, and hygiene of traffic, life-saving; military, colonial, and naval hygiene; and demography. Besides the congress there will be an exhibition in hygiene and means of life-saving arranged under the management of Prof. Dr. Rubner, Hessischer Strasse, 4, Berlin, N. Additional information may be obtained from members of the committees or from Doctor Nietner, Eichhorn Strasse, 9, Berlin, W., Germany.

UTILIZING EXPOSITIONS.

EUROPEAN COUNTRIES ARE SYSTEMATICALLY DISPLAYING GOODS.

Consul Carl Bailey Hurst, of Plauen, brings to the attention of American business men the value of the exhibitions that are occurring with increasing frequency in all European countries as an effectual means of getting before the buying public and building up export trade. Mr. Hurst writes:

This matter of utilizing exhibitions has become such an important factor in Europe in the competition for new markets and holding points of vantage already held that several nations have standing commissions to look after a feature practically disregarded by the American people. The German commission, established to take part in all fairs abroad or at home with the avowed purpose of promoting German industrial and trade interests, entered on its duties January 1. This commission is not a pioneer in the field, but follows, in a way, precedents established by other European countries. In Austria-Hungary a permanent committee of three leading manufacturers' unions busies itself particularly with exhibition affairs. Belgium has also a body that watches over national interests at exhibitions. In England the London Chamber of Commerce sustains a committee that is at work continually on all exhibitions, wherever they may be,

in order to exploit British interests. In connection with this particular committee subcommittees are appointed besides to follow up each exhibition individually. France, for a number of years, has had a committee that looks to the protection of all French exhibitors. In fact, this institution was officially recognized on June 12, 1891, as a public and beneficial organization. Italy is said to be preparing a like measure for the development of her interests.

It is well known that these exhibitions cover a wide range, touching almost every phase of human activity. Numbers of them are held annually, some in each civilized country of the world. They are, in reality, great showrooms, where American goods can be displayed and inspected and profitable business begun. There is a chance for publicity too frequently overlooked. It seems a deplorable mistake to neglect the opportunity of entering foreign fields through these unique trade routes.

ASIATIC TURKEY.

FLOATING EXHIBITION IN THE MEDITERRANEAN.

Consul-General Gabriel B. Ravndal writes from Beirut in regard to a floating exhibition of French products in the Mediterranean:

According to Levantine newspapers, Mediterranean ports are shortly to be visited by an exhibition ship, which is to be fitted out with a view to gaining new outlets for French commerce. The vessel is to be arranged as a floating exhibition of products suitable for export, and French manufacturers and merchants will be enabled to exhibit their goods and samples on payment of moderate charges. A number of salesmen, partly drawn from pupils of the commercial schools, speaking at least two languages, will be carried, these being under the superintendence of experienced commercial travelers. In order to stimulate their zeal, all these employees will be paid on commission, and the widest possible publicity is to be given to the expected arrival at the ports at which the vessel is intended to call. At each place the salesmen will present their samples to the various buyers and transmit the orders they may obtain to the head office, which will see them carried out. A series of receptions and fêtes are to be held on board with a view of attracting customers.

SPAIN.

INTERNATIONAL EXPOSITION AT MADRID.

The Spanish minister at Washington has transmitted to the Department of State the programme of the International Exposition of Hygiene, Arts, Trades, and Manufactures, to be held at Madrid in September, October, and November next, to which the attention of prospective exhibitors of this country is invited.

COMPARATIVE FOREIGN TRADE.

THE UNITED KINGDOM, THE UNITED STATES, GERMANY, AND FRANCE.

According to British statistical computation the following statement shows the imports, exports, population, and trade per capita of the United Kingdom, the United States, Germany, and France, in the year 1906:

Description.	United Kingdom.	United States.	Germany.	France.
Foreign trade:				
Imports for home consumption...	\$2,544,327,900	\$1,813,667,900	\$1,910,227,700	\$1,017,959,900
Exports of domestic produce	1,828,212,600	1,797,820,100	1,490,366,600	981,801,700
Total trade	4,372,540,500	3,110,988,000	3,400,594,300	1,999,761,600
Estimated population on June 30.....	43,659,000	84,154,000	61,337,000	39,400,000
Foreign trade per capita:				
Imports for consumption	\$58.27	\$15.59	\$31.14	\$25.84
Exports of domestic produce	41.88	21.37	24.30	24.92
Total trade per capita.....	100.15	36.96	55.44	50.76

TRADE-MARKS.

AGREEMENTS BETWEEN COUNTRIES IN REGARD TO CHINA.

The Anglo-Japanese Gazette is the authority for the following statement: An arrangement has been concluded between the British Government and the Russian Government providing for the mutual protection of British and Russian trade-marks in China. In future a British subject whose trade-mark, duly registered in Russia, has been infringed by a Russian subject in China will be able to obtain redress from the Russian consular tribunals, and similarly it will be open to a Russian subject whose trade-mark, duly registered in Great Britain, has been infringed by a British subject in China, to take proceedings against the latter in the British court. Similar arrangements already exist between the Governments of Great Britain, Denmark, France, Germany, Italy, the Netherlands, Portugal, and the United States.

Agreements to the same effect are now in force between the United States and the following countries: Belgium, France, Germany, Great Britain, Italy, Netherlands, and Russia.

OCEAN CABLE TO LIBERIA.

Mr. Ernest Lyon, minister to Liberia, has informed the Department of State that a joint resolution has been passed by the legislature authorizing the President of the Republic to enter into arrangements with the Oost African Company for laying a cable between some place in Europe and Monrovia and such other places in Liberia as the company may desire. It is expressly stated that no monopoly

is conveyed in the act and that no part of the expenses shall be paid by the Republic. Lands needed for construction purposes belonging to the State will be granted without charge.

Shortest Telegraph Address.

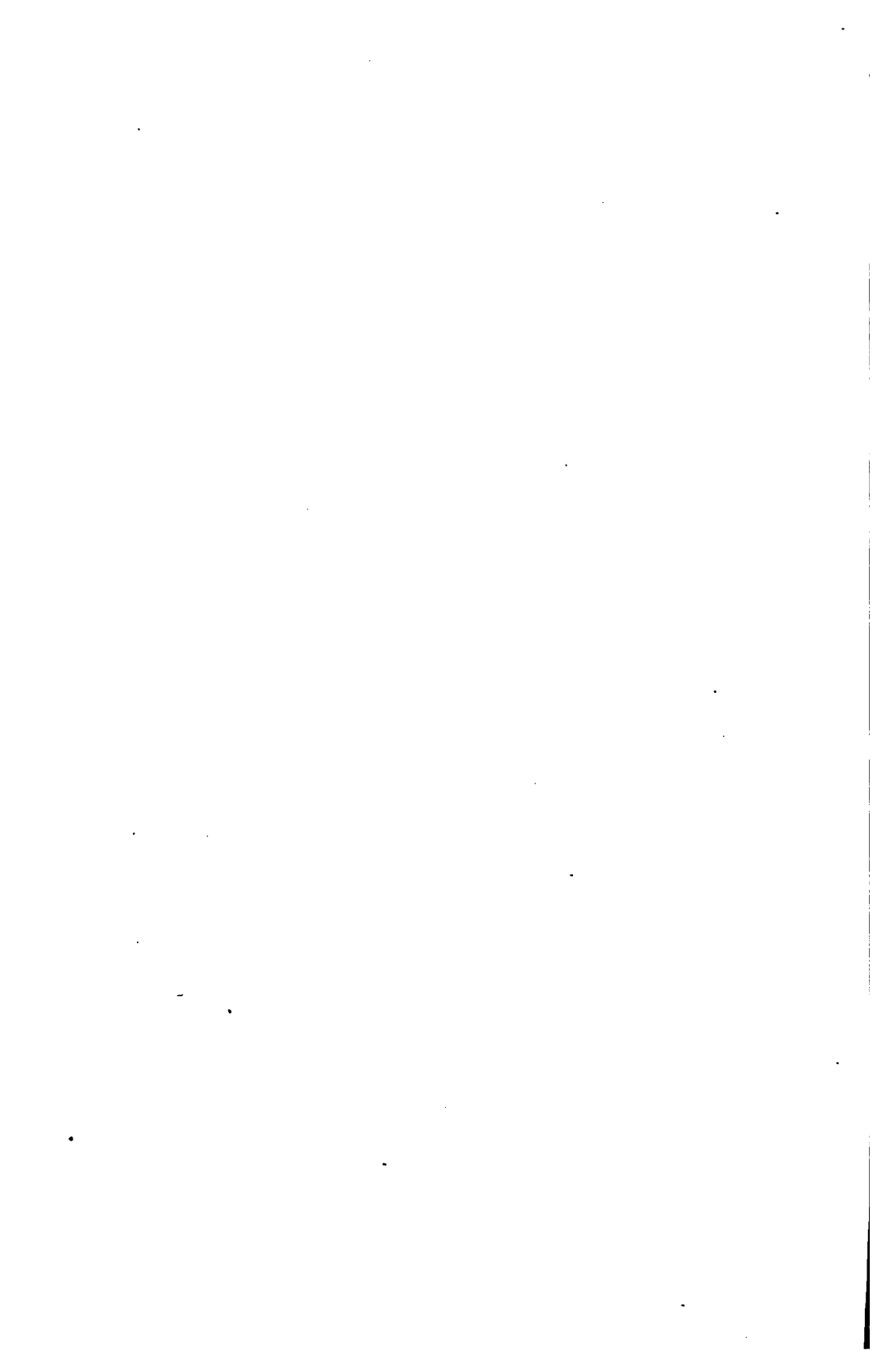
Consul George A. Bucklin, jr., reports that the Glauchauer Tageblatt sets forth a plan which has just been proposed in Austria-Hungary and is being urged for adoption upon the Hungarian Secretary of Commerce, for effecting a great saving in telegraphing and cabling. The newspaper says in part:

As one knows, often half of the telegram is made up of the address, and this is especially expensive in foreign dispatches. Many firms which have a lively trade with other countries. It is true have adopted abbreviated or cipher addresses. But not only must a fee be paid for the registration or publication of such addresses, but furthermore they never come in this wise to the knowledge of the larger circle of the public. In order, for instance, for one to telegraph to a friend in Prague, "Come to-morrow," he must use perhaps five or six words for the address. By the plan proposed this is to be remedied at one stroke, at least for that larger circle of the business public which has telephones. Each firm or family is to register its telephone number at the telegraph office. Then, instead of the address, "Peter Zappfel, Alstädter, Ring 17, Prague," simply "407 Prague" would be telegraphed. The idea seems so sensible and its exercise so simple that no further comment is necessary.

NEW PROTECTION FOR IRON AND WOOD.

Consul Albert Halstead advises that a new process has been patented for making a composition to protect iron and wood work from destruction by oxidization, concerning which he writes from Birmingham:

Not only is it said to be useful for the preservation of the hulls of vessels from the destructive action of the sea water and of barnacles, but also to remain permanently viscous. It is asserted as well that it is noninflammable, and need not be dry before a ship goes to sea. If the composition actually fulfills all the claims made, it should be useful not only for seagoing vessels but for the protection of the steel framework of buildings.



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VALUES OF FOREIGN COINS AND CURRENCIES.

[As given by the Director of U. S. Mint and published by Secretary of the Treasury April 1, 1907.]

COUNTRIES WITH FIXED CURRENCIES.

Countries.	Monetary unit.	Value in U. S. gold.	Coins.
Argentina	Peso	\$0.96, 5	Gold—argentine (\$4.82, 4) and $\frac{1}{2}$ argentine; silver—peso and divisions.
Austria-Hungary	Crown .....	.20, 3	Gold—20 crowns (\$4.06, 2) and 10 crowns; silver—1 and 5 crowns.
Belgium	Franc .....	.19, 3	Gold—10 and 20 francs; silver—5 francs.
Bolivia	Peso ^a .....	.9733	Gold sovereign (pound sterling) and $\frac{1}{2}$ sovereign; silver, 10, 20, and 50 centavos.
Brazil	Milreis .....	.54, 6	Gold—5, 10, and 20 milreis; silver— $\frac{1}{2}$, 1, and 2 milreis.
British N. A. (except Newfoundland)	Dollar	1.00	
British Honduras	do	1.00	
Chile	Peso .....	.86, 5	Gold—escudo (\$1.82, 5), doubloon (\$3.65), and condor (\$7.30); silver—peso and divisions.
Colombia	Dollar	1.00	Gold—condor (\$9.64, 7) and double condor; silver—peso.
Costa Rica	Colon .....	.46, 5	Gold—2, 5, 10, and 20 colons (\$9.30, 7); silver—5, 10, 25, and 50 centimos.
Denmark	Crown .....	.26, 8	Gold—10 and 20 crowns.
Ecuador	Sucre .....	.48, 7	Gold—10 sucres (\$4.86, 6); silver—sucre and divisions.
Egypt	Pound (100 piasters)	4.94, 3	Gold—5, 10, 20, and 50 piasters; silver—1, 2, 5, 10, and 20 piasters.
Finland	Mark ^t .....	.19, 3	Gold—10 and 20 marks (\$1.93 and \$3.85, 9).
France	Franc .....	.19, 3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Germany	Mark .....	.23, 8	Gold—5, 10, and 20 marks.
Great Britain	Pound sterling	4.86, 6 $\frac{1}{2}$	Gold—sovereign (£) and half sovereign.
Greece	Drachma .....	.19, 3	Gold—5, 10, 20, 50, and 100 drachmas; silver—5 drachmas.
Haiti	Gourde .....	.96, 5	1, 2, 5, and 10 gourdes; silver—gourdes and divisions.
India	Pound sterling ^b	4.86, 6 $\frac{1}{2}$	Gold—sovereign (£); silver—rupee and divisions.
Italy	Lira .....	.19, 3	Gold—5, 10, 20, 50, and 100 lire; silver—5 lire.
Japan	Yen .....	.49, 8	Gold—5, 10, and 20 yen; silver—10, 20, and 50 sen.
Liberia	Dollar	1.00	
Mexico	Peso ^c .....	.49, 8	Gold—5 and 10 pesos; silver—dollar ^d or peso and divisions.
Netherlands	Florin .....	.40, 2	Gold—10 florins; silver— $\frac{1}{2}$, 1, and 2 $\frac{1}{2}$ florins.
Newfoundland	Dollar	1.01, 4	Gold—\$2 (\$2.02, 7).
Norway	Crown .....	.26, 8	Gold—10 and 20 crowns.
Panama	Balboa	1.00	Gold—1, 2 $\frac{1}{2}$, 5, 10, and 20 balboas; silver—peso and divisions.
Peru	Libra	4.86, 6 $\frac{1}{2}$	Gold— $\frac{1}{2}$ and 1 libra; silver—sol and divisions.
Philippine Islands	Peso .....	.50	Silver—peso, 50, 20, and 10 centavos.
Portugal	Milreis	1.08	Gold—1, 2, 5, and 10 milreis.
Russia	Ruble .....	.51, 5	Gold—5, 7 $\frac{1}{2}$, 10, and 15 rubles; silver—5, 10, 15, 20, 25, 50, and 100 copeks.
Spain	Peseta .....	.19, 3	Gold—25 pesetas; silver—5 pesetas.
Sweden	Crown .....	.26, 8	Gold—10 and 20 crowns.
Switzerland	Franc .....	.19, 3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Turkey	Piaster .....	.04, 4	Gold—25, 50, 100, 250, and 500 piasters.
Uruguay	Peso	1.03, 4	Gold—peso; silver—peso and divisions.
Venezuela	Bolivar .....	.19, 3	Gold—5, 10, 20, 50, and 100 bolivars; silver—5 bolivars.

^a Peso, $\frac{1}{2}$ of pound sterling.^b The rupee, \$0.3244 $\frac{1}{2}$, 15 to the sovereign, constitutes the money of account.^c Seventy-five centigrams fine gold.^d Value in Mexico, \$0.498.

DEPARTMENT OF COMMERCE AND LABOR
BUREAU OF MANUFACTURES

MONTHLY
CONSULAR AND TRADE
REPORTS

JUNE, 1907

No. 321



WASHINGTON
GOVERNMENT PRINTING OFFICE
1907

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MONTHLY CONSULAR *and* TRADE REPORTS

Washington, D. C.

JUNE, 1907

No. 321

EUROPE.

REPUBLIC OF FRANCE.

FOREIGN TRADE ATTAINS UNPRECEDENTED FIGURES.

A RECORD YEAR—VOLUME AND VALUE OF TRADE—DISTRIBUTION BY COUNTRIES—COMMERCIAL RELATIONS WITH UNITED STATES.

The following is taken from a report of Consul-General Frank H. Mason on the foreign commerce of France for the calendar year 1906, in which is included an interesting statement of the declared values of exports to the United States from the consular district of Paris:

For the first time in the history of France the sum total of foreign commerce in a single year has exceeded ten milliards of francs (\$1,982,496,000). From official statistics just made public it appears that the imports of 1906 reached \$1,009,197,000 and the exports \$973,299,000, making the total foreign trade for the year \$1,982,496,000. The foregoing figures exceed those of previous years and show an increase over 1905 in the total foreign trade of \$120,411,000.

The imports and exports for 1906 were divided in respect to character as follows, in units of metric tons (2,204.6 pounds):

Materials.	Imports.	Exports.
	<i>Tons.</i>	<i>Tons.</i>
Food products	3,132,488	1,405,548
Raw materials	28,659,564	8,452,618
Manufactures	788,860	1,706,777
Postal packages		23,710
Total	32,580,913	11,678,653
Increase over 1905	5,889,489	137,450

Reckoned in official values, the foregoing transactions show an increase of 450,000,000 francs in imports during a single year, and of this amount 250,000,000, or five-ninths of the entire increase, were raw materials for consumption in various French industries.

The full significance of the figures can be best intimated by comparing them with those of the preceding twenty years, and in order to divest the comparison of all mere temporary fluctuations from year to year the following exhibit will show the mean average of annual

exports and imports, expressed in francs (franc = 19.3 cents), during four periods of five years each.

	1886-1890	1891-1895.	1896-1900.	1901-1905.
	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
Imports.....	4,218,800,000	4,075,800,000	4,285,600,000	4,599,100,000
Exports.....	3,439,900,000	3,343,800,000	3,754,200,000	4,367,100,000
Total.....	7,658,700,000	7,419,700,000	8,040,800,000	8,966,200,000
Equivalent.....	\$1,478,029,100	\$1,432,002,100	\$1,551,874,400	\$1,724,696,600

Examination of the foregoing figures show that the increase in 1906 over the annual average for the five years preceding was \$257,809,400; for the five years ending with 1900 the increase was \$430,621,600, and for the five years ending with 1895, \$550,493,900.

GEOGRAPHICAL DISTRIBUTION.

The origin of French imports during the past two calendar years has been as follows:

Country.	1906.	1905.	Gain or loss.
	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
United States.....	517,124,000	512,274,000	+ 4,850,000
Russia.....	291,408,000	274,761,000	+ 16,647,000
Great Britain.....	678,618,000	592,071,000	+ 86,547,000
Germany.....	542,571,000	472,235,000	+ 70,336,000
Belgium.....	342,357,000	312,906,000	+ 29,451,000
Switzerland.....	101,895,000	108,628,000	- 6,733,000
Italy.....	171,118,000	153,334,000	+ 17,779,000
Spain.....	161,903,000	179,886,000	- 17,983,000
Austria-Hungary.....	73,409,000	71,884,000	+ 2,025,000
Turkey.....	107,129,000	100,967,000	+ 6,162,000
Brazil.....	121,501,000	105,249,000	+ 16,252,000
Argentina.....	264,850,000	259,690,000	+ 5,160,000
Algeria.....	259,485,000	216,325,000	+ 43,160,000
All other countries.....	1,596,067,000	1,419,198,000	+176,869,000
Total.....	5,229,425,000	4,778,908,000	+450,517,000
Equivalent.....	\$1,009,279,025	\$922,329,244	+\$86,949,781

The destination of exports was as follows:

Country.	1906.	1905.	Gain or loss.
	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
United States.....	370,352,000	294,866,000	+ 75,486,000
Russia.....	67,780,000	56,149,000	+ 9,631,000
Great Britain.....	1,288,988,000	1,256,236,000	+ 32,752,000
Germany.....	624,993,000	628,757,000	- 3,764,000
Belgium.....	759,952,000	763,655,000	- 3,703,000
Switzerland.....	294,515,000	301,890,000	- 7,375,000
Italy.....	233,677,000	212,487,000	+ 21,190,000
Spain.....	124,694,000	111,431,000	+ 13,263,000
Austria-Hungary.....	35,551,000	30,624,000	+ 4,927,000
Turkey.....	58,743,000	58,028,000	+ 715,000
Brazil.....	51,856,000	42,759,000	+ 9,097,000
Argentina.....	111,037,000	57,674,000	+ 53,363,000
Algeria.....	342,031,000	326,794,000	+ 15,237,000
Other countries.....	679,498,000	698,517,000	- 19,019,000
Total.....	5,043,665,000	4,866,867,000	+176,798,000
Equivalent.....	\$973,427,345	\$939,306,381	+\$34,122,014

IMPORTS FROM THE UNITED STATES.

Trade between France and the United States reached unprecedented dimensions, the sum total of both imports and exports having

surpassed those of any preceding year. The importations of merchandise from the United States into France during the years 1905 and 1906 were classified and valued in the French statistics as follows:

Imports.	1906.		1905.	
	Quantity.	Value.	Quantity.	Value.
	<i>Metric tons.</i>	<i>Francs.</i>	<i>Metric tons.</i>	<i>Francs.</i>
Cotton, raw	171,245	222,620,000	180,133	234,173,000
Petroleum	246,647	32,889,000	284,830	28,779,000
Tobacco, raw	14,863	14,715,000	19,007	18,817,000
Fats, grease	14,706	10,890,000	15,189	11,042,000
Copper	36,497	62,046,000	35,412	60,201,000
Coffee	966	1,006,000	1,158	1,206,000
Lumber	138,936	20,097,000	153,676	21,551,000
Cereals	169,207	26,938,000	90,878	14,427,000
Machinery	31,431	37,858,000	30,289	36,814,000
Meats	1,298	3,303,000	1,150	2,853,000
Cotton-seed oil	30,421	17,346,000	40,703	23,217,000
Hides, skins	1,425	3,905,000	896	2,390,000
Canned lobster			12	27,000
Heavy oils	54,881	7,408,000	37,342	5,041,000
Clocks, watches		81,000		75,000
Whalebone	26	1,488,000	28	1,583,000
Feathers	99	1,898,000	76	1,762,000
Tools, metal goods	1,988	3,165,000	1,707	2,549,000
Wood, manufacturers of	3,141	1,706,000	3,363	1,760,000
Leather	527	6,855,000	339	4,491,000
Chemicals	5,814	2,558,000	3,106	1,464,000
Bran	32,068	4,009,000	2,335	292,000
Crude rubber	214	2,070,000	179	1,733,000
Medicines	153	282,000	214	699,000
Oil cake	19,704	2,956,000	26,362	3,954,000
Cider apples	2,175	652,000	1,613	484,000
Seeds	175	172,000	165	157,000
Rubber goods	80	768,000	65	639,000
Lead			406	146,000
Crude oil			6,462	110,000
Automobiles	12	126,000	6	62,000
Accessories for automobiles	171	915,000	173	1,084,000
Other articles		26,413,000		28,693,000
Total		517,124,000		512,274,000
Equivalent		\$90,804,332		\$98,868,882

EXPORTS TO UNITED STATES.

The merchandise exported from France directly to the United States during the calendar years 1905 and 1906, respectively, were classified, according to French official statistics, in respect to quantity and estimated value, as follows:

Exports.	1906.		1905.	
	Quantity.	Value.	Quantity.	Value.
	<i>Tons.</i>	<i>Francs.</i>	<i>Tons.</i>	<i>Francs.</i>
Silks, manufactures of	1,101	60,964,000	715	41,328,000
Wool, manufactures of	1,736	16,828,000	1,490	14,245,000
Gloves, leather goods	280	19,385,000	171	12,176,000
Hides and skins	9,572	24,380,000	8,693	21,936,000
Feathers, ornamental	369	8,639,000	211	5,327,000
Automobiles	1,204	12,046,000	664	6,647,000
Buttons, fans, and brushes	1,153	8,737,000	1,054	7,879,000
Wines	3,023	8,138,000	2,700	5,093,000
Flowers, artificial		9,612,000		7,350,000
Clothing and linen	3,449	16,431,000	241	11,450,000
Cotton goods	2,556	62,562,000	2,426	59,626,000
Leathers and manufactures	184	8,864,000	233	4,870,000
Crude-tartar	5,418	7,098,000	4,071	5,312,000
Crockery and porcelain	7,412	5,792,000	6,068	6,168,000
Objects for collections	70	2,340,000	70	2,524,000
Hides, dressed	139	1,622,000	126	1,615,000
Papers, books, engravings	1,483	2,347,000	1,274	1,960,000
Fish, packed or in oil	2,427	4,338,000	2,420	4,272,000
Silk, raw and waste	282	7,820,000	345	8,893,000

Exports.	1906.		1905.	
	Quantity.	Value.	Quantity.	Value.
	<i>Tons.</i>	<i>Francs.</i>	<i>Tons.</i>	<i>Francs.</i>
Vegetables, fresh and preserved.....	2,071	1,514,000	1,151	869,000
Wool, raw.....	849	2,802,000	440	1,452,000
Tools and hardware.....	406	1,900,000	411	1,510,000
Clocks and watches.....		725,000		538,000
Linen, hemp, and ramie goods.....	90	368,000	67	313,000
Oils and essences.....	3,156	10,250,000	2,156	7,881,000
Musical instruments.....		1,079,000	857	1,494,000
Hair of all kinds.....	554	2,070,000	357	1,637,000
Fruit for table.....	3,226	1,844,000	3,228	1,785,000
Furniture and woodwork.....	523	1,240,000	427	896,000
Rubber and gutta (crude).....	1,197	11,588,000	790	7,613,000
Perfumery.....	501	1,576,000	468	1,536,000
Glycerin.....	4,731	3,406,000	4,260	3,140,000
Plants and shrubs.....	1,903	954,000	1,089	545,000
Millstones.....	410	779,000	280	533,000
All other articles.....		44,824,000		31,865,000
Total.....		370,352,000		294,866,000
Equivalent.....		\$71,477,936		\$56,909,128
Increase in 1906, \$14,566,798.				

These are the teachings of the French statistics, as published provisionally by the Government soon after the close of the year. In respect to weight and quantity, the foregoing figures, which are derived from bills of lading and other definite records, are approximately correct. But the values, on the other hand, are merely estimated by a commission, which fixes an arbitrary valuation per ton or metric quintal for each kind of merchandise exported or imported, and thus, having at hand the quantities in each class, makes a theoretical estimate of values, which is in most cases so far below the true valuation of the merchandise as to be wholly misleading and worthless for statistical purposes. Particularly is this true with regard to French exports to the United States. According to the official statistics given above, the total value of merchandise, exported from this country to the United States during 1906, was only \$71,477,936. How far this sum falls short of the actual aggregate will be readily inferred from the subjoined tabular statement, in which the various merchandise covered by the 33,449 invoices that were presented and authenticated at the American consulate-general in Paris during the calendar year 1906 are divided and classified alphabetically in English and their declared values given in American currency equivalents, as follows:

Article.	Value.	Article.	Value.
Albumen.....	\$7,810	Bronze goods.....	\$431,766
Art works:		Brushes.....	556,419
Antique.....	663,259	Buttons.....	435,821
Paintings.....	3,584,006	Carbons and electric supplies.....	270,403
Engraving.....	54,398	Carpets.....	80,163
Statuary.....	203,898	Carriages.....	9,066
Frames.....	43,034	Cheese and butter.....	136,465
Artist material.....	324,145	Chemicals.....	234,036
Automobiles.....	2,237,191	China and earthen ware.....	209,268
Automobile accessories and tires.....	2,515,022	Church ornaments, etc.....	119,015
Blacking.....	26,478	Colors.....	124,164
Bones.....	24,994	Confectionery.....	94,289
Books.....	290,460	Corsets and materials.....	230,554
Boots and shoes.....	1,963	Costumes.....	1,734,208
Brandy and liqueurs.....	138,047	Cotton piece goods.....	678,788
Bristles.....	239,289	Curtains.....	582,629

Article.	Value.	Article.	Value.
Dress goods, silk	\$548, 181	Perfumery and soaps	\$1, 292, 965
Dress goods, silk and cotton	159, 278	Photographic goods	560, 768
Dress goods, silk and wool	878, 217	Pins, hair, etc.	20, 258
Dress goods, wool	1, 808, 948	Pipes and smokers' goods	1, 286
Drugs and medicines	271, 928	Plants (living)	56, 120
Fancy goods	648, 087	Platinum	1, 167, 247
Fans	130, 082	Precious stones:	
Fine grass, etc.	26, 265	Real	6, 058, 438
Furniture	609, 185	Imitation	214, 746
Furs	592, 441	Preserved fruits and vegetables	166, 087
Glassware	196, 557	Radium	80, 976
Gloves	1, 448, 282	Rags (for paper making)	170, 522
Glue and gelatin	105, 510	Ribbons	154, 840
Glycerin	77, 772	Rubber clothing	96, 688
Hair:		Rubber, raw	29, 310
Animal	49, 916	Rubber waste	42, 940
Human	27, 877	Saffron	31, 080
Handkerchiefs	73, 934	Sand and cement	4, 600
Hardware	244, 740	Sardines	38, 947
Hatters' furs and leather	594, 335	Scientific instruments	58, 819
Hides and skins	4, 966, 606	Seeds	423, 749
Horn strips and whale bone	7, 253	Shawls	4, 505
Horses	1, 035, 424	Shells (pearl, etc.)	4, 707
Hosiery and underwear	636, 211	Silk (artificial)	42, 188
Incandescent filament	9, 602	Silverware	2, 651
Iridium	37, 512	Steel and manufactures of	284, 608
Jewelry	699, 206	Suspenders and elastic goods	179, 234
Laces and embroideries	1, 782, 219	Tapestries	160, 173
Leather and manufactures of	150, 131	Toilet articles	275, 068
Lingerie	1, 006, 582	Trimmings (dress)	620, 108
Linen (piece goods)	804, 789	Toys	268, 926
Machinery	253, 749	Umbrellas and parasols	10, 890
Manures	27, 840	Upholstery goods	587, 925
Marble (commercial)	88, 620	Vanilla	360, 149
Millinery	5, 182, 920	Veilings	531, 088
Millstones	77, 424	Velvets	101, 568
Mineral waters	182, 007	Vinegar	2, 183
Miscellaneous articles	724, 070	Wall papers	33, 697
Mushrooms	115, 071	Wines	47, 340
Musical instruments	174, 276	Willow and basket ware	5, 466
Muslin	171, 215	Wood and manufactures of	152, 879
Nets (cotton or silk)	191, 808	Woolen yarn	16, 848
Oils:		Zinc, white	23, 588
Fusel	3, 946	All other articles	262, 716
Olive	672		
All others	8, 655	Total	59, 086, 978
Optical goods	534, 197	Returned American goods	258, 242
Palladium	11, 154		
Paper and stationery	144, 437	Grand total	59, 345, 220
Paper for cigarettes	167, 209		
Pearls:			
Real	1, 722, 304		
Imitation	130, 627		

PERSONAL PURCHASES OF TOURISTS.

It is thus shown that if the French statistics of the value of exports to the United States in 1906, viz, \$71,477,936, were correct there would remain for all the other consular districts in France outside of the Paris district only the small balance of \$12,390,958, a supposition too absurd to be seriously considered. Even the unprecedented total value shown by the above tabular statement is incomplete, since it does not include the large amount of goods of various kinds which were sent to America in postal and express packages of less value than \$100, which require no consular invoice, and do not therefore appear in consular statistics. Neither does it include the vast quantity of goods, clothing, jewelry, furs, laces, etc., amounting in value to many millions of dollars, that are bought in Paris every year by Americans and either worn or taken home, without consular authentication, as baggage and personal effects. There is no record or other data here by which the amount of the American imports from France

under these two latter categories can be even approximately estimated, but they form an important percentage of the yearly contribution of France to meet the growing demand for articles of luxury and taste in the United States. It is clearly within reason to assume that the aggregate value of all merchandise, clothing, and personal effects of every kind purchased in the district of Paris and sent or taken to the United States in 1906 was not less than \$70,000,000.

In so far, therefore, as concerns the development of foreign commerce, the year has been one in which France has shown a steady, healthful, and normal growth. This has been maintained in spite of certain disturbing influences, which in a country of less solid and legitimate prosperity might have seriously compromised the general result.

In no country does the interchange of merchandise with foreign nations affect more directly the prosperity of the whole people than in France. Fully five-sixths of all imports consist of food products and the raw materials which feed her diversified industries, whereas far more than half of French exports to all countries are made up of manufactured products of high quality in which the original material has been multiplied in value many times by the skilled labor and artistic handicraft of a people whose trained dexterity and consummate taste make so many of their choicest products the standards for other nations.

[The report of the United States Bureau of Statistics shows imports from France in the calendar year 1906 of the value of \$119,900,329, and exports to the value of \$103,623,431. But a considerable quantity of the exports were really for Switzerland.—B. of M.]

ART OF DEVELOPING TRADE.

LISTS OF NAMES AND CIRCULARIZING VERSUS CANVASSING.

Consul J. Martin Miller reports that many letters continue to arrive at the Rheims consulate from business men of the United States asking for lists of the names of French retail houses in every conceivable line of business. Upon this subject he makes the following remarks:

The consul can but comply with such requests, even when he knows that the letters and circulars addressed to these tradespeople, who do not understand English, represent time and money wasted. A request has just been received from one firm in New York for the names of all the dealers of this consular district in each of 27 different lines of business. The ignorance displayed by some of our business men in these matters is inconceivable. Inquiries have been received at this consulate in the shape of circulars under a 1-cent postage stamp and unsealed. In one or two instances I received complaints that no answers were received from the dealers here whose names the consul had sent, and that the results were unsatisfactory. Of course no response came to letters and circulars in English.

RAW MATERIALS AND MANUFACTURES.

Unmanufactured cotton and other raw materials from the United States are needed over here to keep the factories running and, consequently, little or no effort is required to sell such commodities. It

is a "high science," however, to introduce and build up a trade for the products of American inventive genius and mechanical skill. A study of the methods of the highly successful American manufacturers and exporters could be made with profit by all Americans who desire to enter the foreign markets with their goods. The agricultural implement, cash register, and typewriter houses of the United States will not permit salesmen to offer their products unless they have had a special training for the particular country they are to work in. Those firms requiring local agents have traveling and general agents capable of training the dealers in the different localities in the art of showing the articles offered and closing sales. Successful American exporters go before the people they expect to make their customers in the language of the latter.

SALESMEN EDUCATED IN SPECIAL SCHOOLS.

An American cash register concern and a leading typewriter company long ago discarded the system of having agents who are not members of their trained staff. An American life assurance society has recently adopted the same plan in a more highly developed way than they have ever before attempted in foreign countries. The cash register company probably has the most perfect system of this kind ever built up. In this consular district, containing some 50 prosperous towns and cities, they have several representatives constantly at work who are trained at the school in Paris established by the firm for the purpose of educating salesmen to introduce the cash register in France and other French-speaking countries. They have other schools at Berlin and London as they have in the United States. At the school in Paris, as in the other countries, the candidate for a position as salesman is taken in hand by the regular instructor of the company and is taught everything about the machine. At this school the candidates for positions practice exhibiting the machine to each other under the direction of the instructor. The instruction is free, but the candidates must pay their own expenses during the three weeks' course. After a thorough theoretical drill each candidate is taken out among the merchants by the field instructor to make actual sales and gain a practical knowledge in the high science of meeting and overcoming traditions, customs, and prejudices that do not exist in the United States. The cheap labor in the European countries is also a barrier to be encountered in the introduction of American labor-saving machines.

MANUFACTURERS WHO HAVE SUCCEEDED.

The practicability and success of the organized methods of the agricultural implement, the cash register, and the typewriter manufacturers of the United States is attested to by the fact that they made, in the last three calendar years, the following showing in the value of their goods exported and sold in foreign countries:

Articles.	1904.	1905.	1906.
Agricultural implements.....	\$21,654,892	\$22,124,812	\$24,744,762
Typewriting machines.....	4,138,651	5,102,980	5,694,244
Cash registers.....	1,871,100	2,210,990	2,664,118

A few years ago the cash register was not known in Europe. In the fiscal year 1901 there were 10,998 American cash registers sold

in foreign countries. The trade has since doubled, the number exported during the calendar year 1906 having been 26,471, but bringing over \$100 per machine, against less than \$80 in 1901, because the machines sold now are of a higher grade. During the past five years the value of the American typewriting machines exported have also doubled, the figures being only \$2,827,329 in the fiscal year 1901.

One cash register company has 120 trained English-speaking salesmen at work in the United Kingdom, 150 German-speaking ones in Germany, Austria, and other German-speaking countries, and 36 in France. The great obstacle in the way of the cash register business in France is the fact that the wife of the French tradesman is the cashier and the cash register at all times.

WAGES OF INDUSTRIALISTS.

COMPARISON WITH COST OF LIVING—THE OCTROI TAX.

Consul Miller further reports that, from the American standpoint, the wages paid both skilled and common laborers in France are very low, while the cost of living is relatively higher in France than in the United States, with the exception of house rent and servants' wages.

In Rheims, the champagne houses being very prosperous and bringing \$40,000,000 a year into the community from every country of the world, the wages paid average higher probably than in any other continental district. Those in the champagne export trade pay their clerks capable of carrying on correspondence in two or three languages from \$1,000 to \$1,500 a year, when clerks in other lines of business may not receive more than half such wages. The leading champagne concerns are not governed by the market price of labor as regards any of their employees. While the high wages paid enables the champagne makers to secure the most select of the workingmen, who, as a rule, remain with one firm during their lives, it has little effect on wages in other lines of business or in other sections of the country.

Mechanics of all classes in France, such as carpenters, blacksmiths, bricklayers, stonemasons, plasterers, etc., receive from \$1 to \$1.20 a day, and painters 80 cents to \$1 a day. High-grade machinists may receive a little more, and in Paris the wages are somewhat higher than in the provinces, but not much. Common laborers receive from 40 to 50 cents a day. The average price for dressmakers and milliners is 40 cents a day. Servants are paid from one-third to one-fourth as much as in the United States, and are supplied with inferior living quarters and food. Until the new ten-hour law went into effect a few months ago the laboring men of France worked twelve hours a day. They began at 6 a. m. and quit at 7 p. m., with one hour at noon. Women are not now allowed to work at night, and child labor under 14 years of age is prohibited.

All mechanics in France are obliged to serve an apprenticeship of from two to three years, during half of which period, at least, they receive no wages and must board themselves. In addition to this each one must give up two years of his life for military service, for which he receives 1 cent a day and board and clothes. It will be

seen, then, that every mechanic in France must expend four or five years of his life without wages before he is prepared to earn from 97 cents to \$1.17 a day.

HIGH COST OF LIVING.

Notwithstanding the fact that the slaughterhouses of France are conducted under municipal ownership the price of meat averages higher than in the United States. In Rheims, as in most cities, there is an "octroi" tax on all food products except horse, mule, and donkey meat and vegetables. All articles consumed by the poor people are admitted free. With a population of 109,000 the "octroi" tax of Rheims brings the city a revenue of nearly \$250,000 a year. It is estimated that but 8,000 of the inhabitants of the city purchase articles regularly that are subject to this tax. This means that each of this number of persons pays a city tax of \$31.25 annually on the food consumed. There is a tax in Rheims on such articles as American canned meats, as well as the tariff of the National Government. The "octroi" tax on the following-named articles is: Live stock, on hoof, 40 to 60 cents per hundred pounds; fresh meat, from \$1 to \$2 per hundred pounds; horses, mules, donkeys, and their flesh, free of tax; chickens and feathered game, 5 to 9 cents a pound; turkeys and peacocks, 20 cents each; geese, 8 cents each; ducks, 5 cents each; rabbits, 4 cents each; oysters, 40 cents per 100; oranges, lemons, and table grapes, one-half to 2 cents a pound; wood, \$1 to \$1.40 per cord; lumber, 50 to 80 cents per square meter; coal and vegetables free.

While the price of food products may vary a little in the different cities throughout France the following prices per pound for Rheims give a fair idea of the average cost: Fillet of beef, 50 to 60 cents; faux fillet, 30 to 35 cents; rump steak, 27 to 35 cents; veal, 20 to 35 cents; and mutton, 20 to 55 cents. Some of the very lowest grades of meat, suitable for making soup for the working people, may be purchased at from 10 to 15 cents, but it is principally bone. Other prices are: Horse meat (fillet de cheval), 12 to 15 cents; horse meat, cheap quality, 6 to 10 cents; flour, of best quality, all wheat, 7 to 8 cents; flour, not all wheat, 4 to 5 cents; butter, 40 to 50 cents; cheese, 30 to 40 cents; cheese, a cheap quality for working people, 8 cents; eggs, 4 cents each, or 48 cents a dozen; wood, \$12 a cord; coal, \$8 to \$9 a ton; and gas, 5 cents per cubic meter.

OTHER CITY TAXES.

Those having bank accounts must place a 2-cent stamp on every deposit slip, and when one draws money another 2-cent stamp must be placed on the check. Every window and door in Rheims is taxed 60 cents each per year. The man here earning \$2,000 a year, who lives in style as his neighbor earning five times as much, pays the same tax, so far as his establishment is concerned. The assessors measure the amount of taxes to be paid by the income and this is estimated by the style of the residence, its size, etc. There is an income tax on everything except Government rents or bonds. The idea of the French lawmakers is to throw the burden of the taxes upon the well-to-do people and to relieve the poor in every way possible. Education in the primary schools is free, but in the lycées, or high schools, there is

a tuition charge for those who can afford to pay, but even the rich having more than one child are allowed a reduction for each additional child, so that the family with five or six children would pay but a normal rate. Very poor children who are meritorious may be admitted to the lycées free of charge, at the option of the school authorities.

INCREASE IN SHIPPING.

TONNAGE OF VESSELS AT THE LEADING PORTS.

Consul-General Henry W. Diederich, of Antwerp, furnishes the following statistics, showing the tonnage of vessels entered at the ports of France in 1905 and 1906:

Port.	1905.	1906.
	<i>Tons.</i>	<i>Tons.</i>
Marseille	3,983,016	6,280,823
Havre	2,764,562	3,070,282
Cherbourg	1,774,618	2,496,421
Boulogne	1,848,223	1,996,212
Rouen	989,987	1,436,303
Dunkirk	1,631,068	1,390,991
Bordeaux	977,044	1,111,913
All other ports	5,208,776	6,075,063
Total	21,177,314	23,858,028
Under the French flag	5,684,907	5,889,768
Under foreign flags	15,492,407	17,968,260
Cleared	16,742,780	17,886,503

GERMANY.

TRADE IN BAVARIA.

MARKET FOR AMERICAN MANUFACTURES.

Consul-General William F. Wright, in a report from Munich on the business of Bavaria during 1906, says:

The closing half of 1906 has, with few exceptions, been an exceedingly prosperous period for all the varied industries of Bavaria. There have been no important strikes among workmen, values have been steady, and demand has sufficiently increased to cause a generally larger factory output in almost every line of industrial manufacture. This is especially true respecting those industries engaged in export trade with the United States in this consular district.

In the last half of 1905 the total exports to the United States declared to this consulate-general amounted to \$594,536, while for the corresponding period of 1906 they totaled \$869,486, a very substantial increase, and the largest in the aggregate ever declared to this post in any like period of time. That this business is not waning, but on the other hand is growing, is borne out by the rush of goods to the United States since the first of the current year. So far as regards local export trade with the United States this is ordinarily the dull or between-times season, but to date no evidence of slackness is to be seen, and the shippers almost to a man state that their order books indicate a continuance of present prosperous conditions for months to come.

Respecting the importation of American wares into Bavaria, it is impossible to give figures, because statistics thereon are collated for the German Empire at the principal seaports of the Empire, and this Kingdom neither collates nor publishes the same. Without doubt, however, American wares are growing in popularity and in variety within this Kingdom, and it is believed that this is somewhat due to a better understanding of general business conditions and requirements on the part of our manufacturers as well as to more concentrated and intelligent efforts by consular officials to establish and promote American trade.

Our American exporters, it is believed, would very much promote their export business if dealings could be made direct with the retailer, or, if that is at present impracticable, through an established, responsible, and properly accredited American representative. In this city few, if any, of the business houses handling American wares are direct importers or have any direct communication with the American manufacturers or their responsible representatives. Usually the goods making up their stock of American products are purchased by them from commission houses, one or several as may be, conducted and owned by Germans, and located at Berlin, Hamburg, or other large commercial center. In this manner the actual consumer necessarily pays the profit of the middleman in addition to that of the dealer purchased from, and in most cases the further expense of repacking and reshipping.

PACKING CHARGES.

It should be borne in mind that no German merchant or agent, wholesaler or retailer, fails in his statements of account to render the "packing charges" item. It must also be remembered that the profit of the middleman is not likely to be modest. He fully understands the too frequent inability of his purchasing customer to comprehend and deal intelligently and direct with the American exporter through the medium of letters or trade literature written or printed in English. Too much stress can not be laid upon the importance of our exporters conducting their correspondence in German and directly with those merchants upon whose sale to consumers reliance in the end must be placed to secure and retain export business.

One of the largest of American hardware concerns has for the past two years had an American representative here and his efforts to secure trade have been successful. The success that has followed the exploitation of our sewing machines, typewriting machines, and cash registers has likewise been due to direct communication and representation.

CUSTOM-HOUSE CONVENIENCES.

Within the limits of Bavaria there are custom-houses, at all of which goods are received and shipped in bond, located at 26 important cities, namely, Aschaffenburg, Augsburg, Bamberg, Bayreuth, Fuerth, Fuerth im Wald, Hof, Ingolstadt, Kaiserslautern, Landau in der Pfalz, Landshut, Lindau, Ludwigshafen am Rhein, Memmingen, Munich, Nuremberg, Passau, Pfronten, Regensburg (Ratisbon), Reichenhall, Rosenheim, Schweinfurt, Simbach, Waldsassen, Würzburg, and Zwiesel. Consequently, it is plainly evident that

direct shipments could quite easily be made without undue customs hindrance or delays.

This consulate-general has recently forwarded through the Department of State to the Bureau of Manufactures complete sheets giving in full the respective lines of trade engaged in by all of the mercantile houses of this city, and it is hoped and believed that these sheets may prove of some value to American exporters.

SHOES AND GLASSWARE.

American shoes are in favor in this consular district, but would be much more popular and meet with a much larger sale if handled more in accordance with American methods. Those which I have personally seen and inspected bear brands unheard of in the United States to at least 90 per cent of our population, and cost here \$5 and \$6 per pair. They are mostly an inferior article and might on the home market possibly bring \$2 to \$3 per pair. With progressive methods and at true values and fair average profits better shoes could be sold here for less money.

Cut glassware and pressed glassware for table use are also in favor here. Those handling these wares state that they meet with ready sale and that the demand is growing. The pressed article is more expensive than that made in this Empire, but the difference in price is more than compensated for in the superiority of the American product from every other point of view.

This Kingdom is not rich in fruit or vegetable production, save for the small vine-bearing locality near Würzburg. American canned fruits and vegetables can be purchased here, but the prices are so high that the demand is light. Between packer and final purchaser exists an apparently immoderate profit. Canned corn, for example, of a mediocre brand, the tin containing two-thirds of a quart, retails at the equivalent of 35 cents. The addition of freight charges and customs dues can not be responsible for such a difference above the cost of the same article to the consumer in the United States.

PLATED WARE AND FURNITURE.

Silver-plated ware of American make is very nearly unknown over here, and no good reason is apparent why our silver-plate manufacturers should not secure a good market in this Empire. Plated ware for table use is very popular, and the demand is increasing. The prices obtained are very high, and but little lower than those for which light sterling values could be bought in the United States. In such wares design would be an important factor, but American enterprise should have no trouble in accommodating its ingenuity to a successful result.

In household furniture it is thought that our manufacturers have a line of trade that would most successfully compete in this market if intelligent efforts were put forth. In elegance, solidity, and durability, the last including indifference to temperatures, American furniture is far superior to the German product and much lower in point of price, because of the scarcity of native woods. As to labor, there is little difference of expense. Workmen's wages are lower here than with us, but the average workman does far less real effective labor here than in the United States. Prices over here for finished

pieces are from 50 to 100 per cent higher than could be obtained in the United States.

Safety razors, soaps, tooth powders, power machinery, agricultural implements, umbrellas, condiments, hardware supplies, laundry machinery, paper stocks, patent tumbler locks, cereal foods, selected woods, and ice-cream freezers are a few of the many articles for which a market demand could be created here under proper expenditure of ways and means.

AMERICAN PURCHASES.

QUALITY OF SHIPMENTS—HIGH DEGREE OF EFFICIENCY.

According to Consul H. W. Harris, of Mannheim, it can not be said that European-made goods average better in quality than American goods, upon which he comments:

On the contrary, there is a large amount of cheap furniture, textiles, tableware, cutlery, jewelry, and other manufactured products sold in many parts of Europe to a not very discriminating trade, often without means to buy, which is not good in quality. In many German cities large department and other stores cater to this class of trade. But apart from this is a large manufactured product for foreign and domestic sale in which much stress is placed upon the excellence of its quality. In some cases doubtless the claim of excellence is overstated. In other cases it is not, and at all events the frequency with which it is made points to a widespread and certainly increasing view that quality is to be the watchword of European trade, and especially of the exporter. The dominant note of much of the advertising in German trade and other papers is good materials, durability, etc.

A study of Germany's export trade would certainly show that in many lines its customers believe in the excellence of its merchandise and that much of it is excellent in quality, and that this is true of staple products as well as those in which art and artistic training are important factors. Some writers refer to American imports from Germany as if they were chiefly toys and fancy articles. Trade statistics do not sustain this view, but show rather that the chief purchases from Germany are staples. Thus, for example, of the \$152,000,000 worth of goods exported from Germany to the United States in 1906 the great bulk was of staple products.

CLASSES OF EXPORTS.

In 1904 Germany's total export trade was in value around \$1,265,000,000. In a summary of these exports, made by the American consular office at Berlin, toys occupy sixteenth place, with a total to all parts of the world of but \$15,000,000 worth. Cotton manufactures headed the list with \$80,000,000, manufactures of iron were second with \$60,000,000, machinery third with \$59,500,000, woolen goods were fourth with \$59,000,000, and so on. The exports of woolen yarn occupied fifteenth place in the list, and were somewhat more than the total export of toys, which seems so frequently to suggest themselves when German exports are mentioned. The exports for 1906 would, if classified, probably show a somewhat similar character. In this vast export trade, and especially in that part of it

which goes to the United States, doubtless price is an important factor, but the question of quality is also a material item.

It would doubtless be impossible to determine the relative importance of the various factors which enter into a great foreign trade. Price, shipping facilities, fitness of the merchandise for the given market, care in packing and handling, credits, and other items all enter into the question. The German manufacturer hopes to convince the buyer that his product is the best, or equal to the best to be had, whether it be an automobile, electric or other machinery, textiles, food products, or whatever it may be.

The carrying on of the same industry in one locality for several generations has tended to create a high degree of efficiency among workmen. The low rate of European wages as compared with American wages tends to keep the percentage of hand work higher in the European factory than in the American factory. In some cases this secures a more careful guarding of the minor details upon which excellence to some extent depends. Legislation in various parts of Europe, as in the United States, has addressed itself to a better regulation of food products designed for export. Such legislation and the agitation which accompanies it will have the effect in more scrutinizing of other merchandise and tend to raise its standard.

SUCCESSFUL SELLING METHODS.

PERSONAL REPRESENTATION OVERCOMES A CATALOGUE FAILURE.

As an illustration of the point that merchants and manufacturers can not hope to compete well abroad by means of catalogues or advertisements Consul H. II. Morgan, of Stuttgart, calls attention to the following:

A certain firm of American pen manufacturers tried for a long time without success to get a sales footing in Germany and other parts of Europe. They spent large sums in advertisements and placing their goods on sale with retail firms in their line of business. They sent illustrated catalogues broadcast all over Europe. The result was failure. They then sent over a competent agent who made his headquarters at Stuttgart. This agent tells me that his success has been phenomenal, and that from a small beginning the business of the house which he represents has increased to enormous proportions, and that he now has traveling agents drumming successfully every town in the German Empire. What has been done in this case can be repeated in others.

I can understand that the vast commercial and industrial prosperity at home has made many of our merchants and manufacturers indifferent to the foreign trade, but the time will come when they will need a foreign market for the overproduction of their factories, and I think it timely now, in the days of prosperity, to sound a note of warning to prepare during our hour of commercial peace for the hour of commercial war.

SWITZERLAND.

TRADE AND INDUSTRY.

EFFICIENCY OF COMMERCIAL TRAVELERS—EXTENT OF IMPORTS.

From an authoritative source it is learned that in Switzerland during the year 1906 licenses were issued to 31,248 commercial travelers, against 31,748 in 1905. Of the former, 24,421 represented Swiss and 6,827 foreign firms. The revenue from licenses to sell amounted to 419,333 francs; of which 383,343 francs was furnished by Swiss and 25,990 francs by foreign travelers (1 franc = 19.3 cents).

Of the foreign travelers Germany furnished 4,706; France, 1,297; Italy, 386; Austria-Hungary, 252; Belgium, 84; England, 67; Holland, 28; Spain, 6; United States one.

The principal branches of commerce and industry were represented by travelers in the following proportion:

Textile industry	4,841	Stones and cement	411
Machine and metal industry ...	2,516	Glass industry	232
Chemicals, dyestuffs, and perfumery	1,037	Art industry	1,400
Wood and wood goods	536	India-rubber goods	79
Grease and tallow	362	Manures	77
Food and delicacies	9,534	Straw plaits and braids	83
Leather and shoes	487	Jewelry and watches	485

The large proportion falling to food and delicacies, especially wine and other drinks, finds explanation in the enormously developed hotel industry of Switzerland.

Personal business relations between producer and consumer, seller and buyer, form the basis of commercial success and bring countries politically into closer relations. Moreover, they increase and strengthen commercial connections and give the best insight into the wants and wishes of the consumer. This method is specially applied in Germany and is the secret of the unexampled success of that country in manufacture and export.

VALUE OF IMPORTS.

In 1905 (statistics for 1906 are not available) Switzerland imported merchandise from the United States to the aggregate value of 53,000,000 francs (franc = 19.3 cents). The following table shows countries from which imports were received and their value:

Country.	Value.	Country.	Value.
	<i>Francs.</i>		<i>Francs.</i>
Germany	441,000,000	England	69,000,000
France	274,000,000	Holland	8,000,000
Italy	177,000,000	Spain	19,000,000
Austria-Hungary	92,000,000	United States	53,000,000
Belgium	82,000,000		

The sum of 53,000,000 francs is a very modest one considering the importance of the United States. About 18,000,000 francs of the total was for raw cotton, 6,000,000 for petroleum, 5,000,000 for leather, 5,000,000 for tobacco, 8,000,000 for wood, and 3,000,000 for oils and grease, so that for all other industrial and textile products there remains only about 8,000,000 francs.

LACK OF AMERICAN EFFORT.

The American industries do not pay enough attention to Switzerland. According to the recently completed provisional statement of the Swiss customs department the imports in 1906 aggregated 1,418,609,828 francs and exports 1,074,868,693 francs. These figures do not include coined precious metal, amounting in 1906 to 85,134,934 francs in imports, compared with an export of only 28,490,989 francs. The total commercial balance gives as the result per capita of the population the sum of about 750 francs. The approach to such a country commercially is worthy of a greater and more intelligent effort than has hitherto been made on the part of the United States. The issuing of printed catalogues and advertisements is of little use in this country, where the buyer is accustomed to meet the seller, and likes to enter into business connections personally and not on paper. The Swiss, who is to be found all over the world and everywhere captures his customer personally and shows him his samples, is for the most part only to be found in the same way as a buyer. For catalogues and newspaper advertisements the waste-paper basket is handy.

America is developing in an extraordinary degree as an industrial nation, and will therefore depend ever more and more on the export of its industrial and textile products. It can not therefore be sufficiently emphasized that it must in Europe, and especially in Switzerland, get used to the system of doing business which has secured for other countries the largest commercial success—the system of dealing personally, and not on paper, with the consumer.

FOREIGN COMMERCE.

LARGE INCREASES LAST YEAR IN IMPORTS AND EXPORTS.

Consular Agent Ernest L. Phillips, reporting from Chaux-de-Fonds, says that according to statistics of the Swiss custom-house the imports into Switzerland during the year 1906 amounted to 1,418,609,825 francs (\$273,791,696) and the exports to 1,074,868,693 francs (\$207,449,658). Mr. Phillips continues:

These show gains over 1905, when the imports were 1,379,850,723 francs (\$266,311,190) and the exports 969,321,005 francs (\$187,078,954). These figures, however, do not include the precious metals used for coining, the importation of which totaled 85,134,934 francs (\$16,431,042) and the exportation 28,490,899 francs (\$5,498,744).

It is interesting to note that there were imported in 1906 815,327 hectoliters (hectoliter, 26.417 gallons) of beverages, of a value of 21,180,000 francs (\$4,087,774). This is a falling off of 1,424,874 hectoliters, valued at 36,290,000 francs (\$7,003,970), over the preceding year.

Never in the history of the exportation of watches and parts have the figures attained such a magnitude. This item amounted to 150,401,527 francs (\$29,027,495), showing an increase of 19,111,109 francs (\$3,688,443) over 1905. With regard to the number of watches sold the results are as follows: In nickel cases, 4,462,071; in silver cases, 3,135,991, and in gold cases, 1,818,905. If one adds the separate cases, movements, complicated watches, etc., it will be found that 11,820,344 pieces have been exported.

Over one-eighth of the entire Swiss exports found their way into the United States last year.

ELECTRIC ENERGY.

POWER PLANT ON THE RHINE—CONCESSION GRANTED.

Consul George Gifford, of Basel, reports that a concession has just been granted by the authorities of the district of Lörrach, in the Grand Duchy of Baden, for a new electric power plant on the Rhine. The consul adds:

This project will require the building of another dam across the river between Wyhlen, in Baden, Germany, and Augst, in the Canton of Baselland, Switzerland, the site of the old Roman stronghold of Augusta Rauracorum, about seven miles upstream from Basel. The Swiss canton named, as the sovereign of the left bank of the river granted the concession on its part several months ago.

The cost of the new enterprise is estimated at \$2,000,000 to \$3,000,000, to be provided by the joint grantees, the Canton of Basel city and the Power Transmission Works at Rheinfelden. The latter company will be the real contractor, and must begin its work within a year and a half and finish it within seven years, under penalty of forfeiting its eighty-year concession. The same corporation has already built and operated the famous water-power plant at Rheinfelden, only three miles farther up the Rhine, which was one of the first great electric power works of the world, and still rivals in importance those at Niagara and at the falls of the Rhine, near Schaffhausen. The Rheinfelden works furnish light and power to German and Swiss towns and villages, and even to isolated farmhouses where silk looms are driven by electricity, within a circuit of 20 miles in all directions. The factories and workshops, not only on the Rhine, but on the Wiese, Birsig, Birs, and Ergolz, are largely supplied from this source.

BASEL NEEDS MORE POWER.

The city of Basel supplements its own steam plant by means of two power-transmitting wires, one on each side of the Birs, from Rheinfelden. But the power available from both works not being sufficient to drive the street cars, furnish light, and satisfy the growing demand for power for industrial purposes and extension of the electric tramway system, it has long been a question of further utilizing the water power of the Rhine. Many projects have been discussed and abandoned, several of them having in view damming the river where it passes through Swiss territory alone, either below the city, toward the Alsatian frontier, or above the city, at Birsfelden. The project finally adopted in cooperation with the German Grand Duchy is hampered with all sorts of restrictions imposed at the instigation of many opposing interests. The persons possessing a monopoly of the salmon fishery at various points must be indemnified. But a much more important obstacle to the speedy completion of the work is the consideration that by the terms of the concession must be granted to the projected extension of the navigation of the Rhine, even above Basel.

The reopening of the great stream to freight traffic between Strassburg and Basel, after half a century of interruption occasioned by

the building of railroads on both banks, has excited so much enthusiasm among its promoters that they dream of nothing less than a direct river route from Rotterdam to the falls of the Rhine, and beyond to the Lake of Constance, with river connections with the whole interior of the country. The Basel-Strassburg route, which is subventioned by the Swiss Confederation as well as by Basel and several other cantons, has already built a little harbor and dock in this city and has conceded the business of transshipping goods to a private corporation. Any project for further obstructing the stream, the navigation of which is already made so difficult by a series of pontoon bridges beginning at Hünningen a few miles below this city, must accordingly reckon with vigilant and at present much excited promoters of another public enterprise of enormous importance.

INCOME FROM TOURISTS.

MILLIONS OF MONEY SPENT, ONE-TENTH OF IT BY AMERICANS.

Consul R. E. Mansfield, writing from Lucerne, says that the amount of money spent annually by tourists in Switzerland and the importance of the business to the commerce of the confederacy may be calculated from the following figures gleaned from statistics of Lucerne:

During the season of 1906, from May 1 to November 1, there were 186,227 tourists and visitors registered in the hotels and pensions in the city of Lucerne. Of this number 18,346 were from the United States. This does not take into account the great number of travelers who visit and spend much time each year in the numerous attractive villages, lake and mountain resorts in the vicinity of Lucerne.

The railway statistics show that the tourists to this city last season spent \$6,439,540 for local railway fares. The average number of visitors per day for six months, 180 days, is estimated at 5,000. It is estimated that they spend while here, on an average, \$5 per day each, making a daily expenditure for hotels, carriages, incidentals, etc., \$25,000 a day, which for the six months amounts to \$4,655,675. Add to this the amount spent for railway fares in Lucerne, \$6,439,540, and we have a total of \$11,095,215. The population of the city of Lucerne is 32,000, which makes the amount of money spent by tourists in the city equal to \$347.35 United States currency per year for each man, woman, and child living in Lucerne. A fraction over 10 per cent of the total amount thus spent by tourists was by Americans, making \$1,110,000 American money spent by pleasure and health seekers in Lucerne alone last season.

When the fact is taken in consideration that the figures given in the foregoing statement represent the money spent by tourists in Lucerne alone for one season, that this is only one of the many attractive cities in the country, and that there are a large number of popular winter resorts in Switzerland, where thousands of tourists spend the winter in expensive hotels, the importance of this class of business and the vast sums of money coming into the country annually through this source may be appreciated.

The prospects for a prosperous business during the season of 1907 are better than for any previous year, and unusual preparations are

being made to accommodate the enormous crowds that are anticipated in Lucerne, the city of four cantons, and the Mecca of tourists to Switzerland.

AUSTRIA-HUNGARY.

MODERN TECHNICAL SCHOOLS IN AUSTRIA.

PRACTICAL WORK OF INDUSTRIAL EDUCATION FOR THE MANY TRADES.

Special Agent A. B. Butman reports that, to supply the needs of its population in industrial instruction, Austria has evolved a comprehensive system of primary and higher education, which is under the combined supervision of the ministries of instruction and commerce; and of which the following is an account:

These schools have justly enjoyed a good reputation among other nations, even serving as models for similar institutions in some countries. The inception of Austrian industrial education was in 1872, the first period of development lasting until 1884. The second period continued until 1897, while the most important development has occurred since that year, the Austrian Government deeming it imperative to employ the most efficient means, owing to the industrial progress of the world, in order to maintain competition with foreign countries. The main underlying purpose of the present method is to endeavor to form a close connection and interdependence between school and practice, and is contained in the following school types:

First. Schools which give complete instruction in a certain trade.

Second. Schools in which tradesmen may obtain further instruction in their special trade.

Third. Schools giving preparatory instruction.

SEVEN CLASSES OF TECHNICAL SCHOOLS.

I am told that after these twenty-five years' experience in industrial education the best result may be said to have been attained by those schools requiring as one of the terms of admission some years' previous practice in workshops, such pupils forming the most promising material and proving the more eager students. The school types previously mentioned may be divided as follows:

First. Central institutions of industrial education with higher aims, as the Austrian Museum for Art and Industry, Industrial Art School, the Technological Trade Museum, Institution for the Graphic Arts, Central Lace Course, and Art Embroidery School. These in Vienna, with the Technological Museum at Prague, are all State institutions, having an attendance in 1906 of 2,435 pupils.

Second. State trade schools, established for the purpose of furnishing general technical education in industrial arts and the trades. While these schools are not entirely uniform, the course of instruction in each fills four years, and would-be pupils must have passed a period of eight years in the public schools. Graduates on leaving these trade schools may become building contractors, independent tradesmen in any of the industrial arts, managers of industrial undertakings, etc. There are at present 21 schools of this type in Austria, having an attendance of 12,566 pupils.

Third. Special schools for the building trades to afford further instruction to journeymen carpenters, etc. These are a comparatively new departure, and thus far eminently successful in the two institutions already opened, with an attendance of 609 pupils.

Fourth. Special schools for specific trades. Many of these schools have been established with a view to meeting the particular needs of their respective localities, and at the present time there exist of this type 82 State schools attended by 10,382 pupils and 75 schools subsidized by the State.

Fifth. Schools for the handicraftsmen. Of these institutions in Austria, 6 are maintained by the State, where instruction is given to 2,222 pupils, and 5 are subsidized.

Sixth. Special schools for industrial drawing, of which there are 4 in the Empire.

Seventh. General schools for further instruction in the trades and in drawing. These include instances where the course is annexed to the public school. Altogether they number 1,000 schools, attended by 130,000 pupils. The schools are usually subsidized by the State and for the most part supported by the municipalities.

SUCCESS OF THE VIENNA INSTITUTION.

The Technological Trade Museum, of Vienna, is one of the most important institutions for industrial education in Austria. The departments comprise those for instruction in the chemical trades, including dyeing, food chemistry, and analysis for instruction in the metal and electro-technical trades, etc. The metal-trade department consists of a lower and a higher grade. All pupils seeking admission must have reached the age of 14 years, passed the examinations of the public school, and be considered physically fit. Such pupils are accepted on two months' probation. The instruction covers matters of general education and all things treated of in the metal industry—i. e., language, mathematics (arithmetic, geometry, algebra, trigonometry, etc.), free-hand drawing, physics, mechanics, mechanical technology of metals, general chemistry (organic and inorganic), trade hygiene, and general practice in workshops. The course for the lower grade is concluded in four years, that of the higher grade for more advanced study necessitating attendance for an additional two years. The formal entrance fee is 4 kronen (krone, 20.3 cents), the cost for one year for Austrian youths 240 kronen, and for those of other nationality 340 kronen.

In the department for electro-technics, which is also divided into a lower and a higher grade, like terms of admission (age and public school examination) are required. The lower grade occupies three years, and students are fully taught those things pertaining to electrical science and application. Two additional years are required for completing the course of the higher grade, and graduates are enabled to assume any position in the electrical branches. The entrance fee and cost are the same as those for the metal-trade department, but in both instances, where worthy pupils are unable to pay, arrangements are made for partial or entire exemption from all expenses. This department was the second school of the kind to be established, a like institution at Frankfort, Germany, being the first.

OTHER BRANCHES OF INSTRUCTION.

Very much is done by the ministries of instruction and commerce in the way of advancing the trades and handicrafts, all means at their disposal being employed to assist the smaller tradesmen in withstanding the onslaught of the great manufacturing industries. This initiative is followed up by the different provincial authorities. In the Technological Trade Museum at Vienna is also a department or school established by the ministry of commerce for furthering its endeavors toward the promotion of the trades. Instruction is given in woodworking, metal working, chemical trades, plumbing, carpentry and joining, shoemaking, dressmaking and tailoring, etc. Tuition is here absolutely free, and in addition, for those pupils coming from outlying districts, scholarships are provided sufficient in amount to defray all necessary living and traveling expenses.

Most important and interesting are the small model shops connected with the school in operation, with their necessary attendant foremen and managers, while practical instruction is given in the several trades. The cost of installing the model shops has been as follows: Shoemakers', 23,276 kronen; tailors', 7,985 kronen; joiners', 26,444 kronen; carpenters', 6,796 kronen; locksmiths', etc., 38,556 kronen; galvano technical, 15,469 kronen, and electric installation, 17,000 kronen.

Exhibitions of the products of students' labor are held from time to time.

STUDENTS ARE AIDED FINANCIALLY.

The shoemaker's course may be completed in six weeks and includes anatomy of the feet, measure taking, cutting, computing, etc. The Government allows scholarships for master shoemakers to the amount of 120 kronen, and for journeyman shoemakers to the amount of 100 kronen. At the beginning of the present year 975 persons in 60 courses had been instructed in these model shops. Six weeks are likewise devoted to the course in tailoring, and the same amount is allowed for scholarships as mentioned for shoemakers. Fifty-three courses have already been completed, in which 852 pupils received instruction. The joiner's course occupies eight weeks, during which time a knowledge of the scientific treatment of woods is taught. The allowed scholarships in this course are for Vienna master workmen 160 kronen, for Vienna journeymen 140 kronen. Thus all participants unable to provide their living expenses during the term of study are supported by stipends, while to those living outside Vienna the reimbursement or scholarship is for master workmen 270 kronen, and for journeymen 190 kronen, thus making provision for traveling expenses. The graduates of the 38 courses already completed number 505.

Graduates of the carpenter's course, which occupies twelve weeks, are qualified for the position of foreman. These number 293, twenty courses having been given. The students entering upon this course are usually master workmen, to whom the Government allows a scholarship to residents of Vienna amounting to 200 kronen, and to nonresidents 240 kronen. The course of locksmiths and tool makers is eight weeks. Twenty-five courses have been taken and 300 pupils

graduated. The same amounts are granted for scholarships as in the joiner's course.

In galvano technical instruction nine courses have already been completed, with a graduate list numbering 101 pupils. Viennese receive a scholarship of 160 kronen, others 200 kronen.

Legal instruction pertaining to the respective courses is given in every case. Since the opening of this institution 3,026 artisans have been given instruction in 205 courses pertaining to their individual trades, the amount of whose subsidies has reached 400,000 kronen. The Government also maintains teachers who travel regularly in the provinces giving similar instruction to natives in remote country towns. It was observed that many products of American origin were used in the equipment of these model shops. These mechanisms from the United States were highly commended.

INDUSTRIAL BOHEMIA.

LARGE HARVEST AND PROSPEROUS CONDITIONS IN 1906.

The following information covering the industrial conditions of northwestern Bohemia has been prepared by Consul John Steel Twells, of Carlsbad, from the annual report of the Eger chamber of commerce:

The year 1906 was a prosperous year for Austria, and this prosperity was fully shared by Bohemia. The autumn was favorable for the ripening of the grain, and the harvest was an exceedingly good one. The hop crop of the Saaz district was an exception to the general prosperity, the yield falling below the standard of former years, and the economic conditions of that important district were accordingly unfavorably affected. In this regard the exports of hops to the United States from this consular district do not sustain the estimate of the chamber of commerce, amounting to \$310,290 for the calendar year 1906, being \$127,347 in excess of the exports for the preceding year. The products of the forest yielded, as in former years, satisfactory results.

FUEL, METALLURGY, AND TEXTILES.

The production of Bohemian brown coal increased and the prices were higher than in the preceding year. The increased demand for coal may be ascribed to the improvement in the manufacturing industries, and the same condition may be predicted for 1907. The exportation of coal to Germany has increased, but at less profit to the producers than formerly, the cost of production having increased, and the condition of the miners improved, at considerable expense.

The manufacture of machinery largely increased, and during several months of the year the Bohemian factories worked overtime; the iron works were likewise very busy. The earthenware and china trade competes successfully with the growing industry of Germany.

The textile trade improved, although at Asch, where a considerable number of dress and woollen factories exist, the trade, which promised to be a good one, suffered from strikes, but on the other hand the trade in worsted goods was very satisfactory. In consequence of the new Austrian tariff laws, and the tariff agreement with Germany, it is expected that many new textile factories will be erected in the district of Carlsbad.

The flour mills of Bohemia complain that their trade is not good; but the reason for this may be found in the severe competition of the Hungarian mills. The beer trade shows improvement. The large breweries continue to change into limited companies, and the smaller concerns suffer greatly from this powerful competition. The artistic trades are not very largely represented in the country districts of Bohemia, but the polygraphic trade of the printing works is developing, and the number of newspapers increasing. Strikes at the beginning of the building seasons are now very common in this district; there is a strike in the furniture trade still pending, which causes great damage to that industry. The manufacturers, architects, and other classes of employers have formed organizations against strikes, which are reported to have considerable effect.

The health resorts, with their visitors, the number of which amounted to several hundred thousand persons, influenced trade to a great extent, although during the past season many complaints were heard that foreign visitors did not buy specialties as freely as in former years. In the mineral-water trade it is said that, in spite of the large duties levied upon mineral water in some foreign countries, the trade is increasing.

GLOVE COMBINE.

ORGANIZATION TO PROTECT AGAINST TRADE DIFFICULTIES.

Consul Urbain J. Ledoux, of Prague, supplies the following information relative to a combination of Austro-Hungarian glove manufacturers and the purposes of the combination :

The Bohemian glove manufacturers have just held a meeting in Prague which may have considerable effect on the glove industry and indirectly on the glove-leather industry. At this meeting, which was also attended by delegations from other parts of Austria-Hungary, it was resolved to form an association of the glove manufacturers of the dual monarchy, and a committee of nine manufacturers will shortly present a draft of the rules by which it is to be governed. The aim of the organization is the protection of its members against the demand for additional wages by employees and protection against excessive competition in buying and selling.

The Dingley tariff reduced the export of gloves from Bohemia to the United States from \$408,670 to practically nil, and the industry had hardly recovered from this crisis when the enormous increase in the prices of glove leather and the general demand for higher wages again seriously embarrassed it. There was an active demand for gloves from the United States in 1906, the exports amounting to \$154,464, but as most of the sales were made for forward delivery at comparatively moderate prices, most of the manufacturers had to deliver their goods at a very small margin of profit, and in some cases below manufacturing cost. This was due to the rapid increase in the prices of leather and to the necessity of increasing the wages of the workmen.

INCREASE IN WAGES AND PRICES.

The glove workers are again asking for an advance in wages, which the manufacturers state they are unable to grant. This is

the main reason given for the new organization, but it is said that its principal aim may later be mutual protection against excessive competition in buying and selling. Should this be as successful as other Austro-Hungarian industrial combinations in meeting the demands of labor and in preventing ruinous competition the movement may have a far-reaching effect on the glove-leather and leather-glove industries of other countries.

The enormous increase in the prices of glove leather seriously embarrassed this industry, as the prices of the manufactured article would not follow the advance in the raw material. At the beginning of the year considerable sales were made for forward delivery at comparatively moderate prices, so that in the autumn season manufacturers were delivering goods below manufacturing cost.

The prices in lamb leather advanced from 60 to 70 per cent, and assortments were quite inferior, which brought the difference in value to about 100 per cent. This was not particularly due to any extraordinary activity in the glove trade, but to an ever-increasing demand for other purposes, such as fancy articles, caps, automobile costumes, shoes, etc.

On account of the fashion in short sleeves there was a great demand for long shapes. Knitted gloves, on account of their cheapness, greatly affected the sales of leather gloves. A retrieving feature was the active demand from the United States. The export to the United States from this consular district amounted to \$154,464, against \$39,859 in 1905.

AUTOMATIC LETTER-REGISTERING MACHINE.

Consul Ledoux also makes the following report from Prague on a new Austrian invention:

An automatic machine for the posting of registered letters has been invented by the engineers Anton Foder and Aurel Bucky. This apparatus, which makes it possible to post registered letters without the assistance of post officials, is said to have been accepted by the French and the Hungarian Governments. At a recent demonstration in the presence of the postal authorities the machine was declared a success, and some machines are to be put up shortly to test the practical value of the invention.

UNITED KINGDOM.

COMMERCE OF SHEFFIELD.

INCREASING PROSPERITY IN ALL LINES OF TRADE.

Consul C. N. Daniels, in his annual report reviewing the trade and industries of Sheffield, England, for 1906, says:

The increasing prosperity in the heavy trades has not yet been felt by all the light industries, although by the figures nearly all show gains. Considerable improvement has taken place in the file and tool trades, and where firms have installed up-to-date machinery they have been fully occupied. Cutlery during the months of September and October made substantial gains, dropping again the last of the year, yet on the whole making a much better showing than for

some years past; some firms are said to have done a better business with the United States than ever before. The trade with Australia and Canada is said to have been far above the average of recent years. The trade with India, China, and Japan has been good, and the reports for the future are encouraging. Razor and scissors manufacturers have been able to keep their people well employed. A scarcity of men who will undertake the hollow grinding of razors has forced the makers to send large quantities to Germany to be ground. The restriction of the men's union of the number of apprentices and the fact that dull trade in the past has caused numbers of the more expert workmen to seek other employment has practically reduced the surplus high-class labor in the cutlery trade to a nonexistent point, and manufacturers would be at a loss what to do should there be a season of really good trade. Except for the introduction of machinery in the production of blades, scales, and springs, the demand could hardly have been met.

MANY COMMODITIES SHOW ADVANCES.

The improvement in the cutlery trade has brought about an increased demand for cabinet cases, all the material entering into the construction of which has advanced. Timber of every kind is higher in price; particularly is this true of Austrian oak and pine deals, two of the principal woods used in the trade. At the last sales the prices obtained for Austrian oak were double those of two years ago. Pine deals have been steadily going up for years, and prices are now higher than ever known before.

The export of brass scrap continues to grow, and blanco (pipe-clay preparation) shows a marked advance. Garden tools and graining combs show moderate gains; horn, and manufactures of, fair advance; while machinery, a comparatively small item in 1905, assumes fair proportions; and measuring tapes keep well up to the usual standard. Pearl, and manufactures of, keep a proportionate place with horn, and platinum sponge shows decided increase. Twist drills show healthy growth, and extremely active inquiry is reported. Sheep shears show a fair gain, and one or two firms are said to have had exceptionally fine trade in America and Australia. The item of hair shows the greatest individual loss, for which it is not easy to account. Railway buffers show substantial falling off, and saw plates lose in proportion, while traction engines disappear from the list entirely.

During the past year considerable attention has been attracted to what looks like an attempt to revive the lead industry in northwest Derbyshire, near Sheffield. The mining of lead in this district was formerly an important work, and the hills in that section are pitted with mines, many of them long ago abandoned, the ore from which is said to have been of exceptionally fine quality. Recently there has been action under the old lead-mining laws of the Kingdom, which permits the taking over of abandoned mines by persons who are disposed to work them, and many of the old mines have been "nicked" by the barmaster, and have passed from the control of the former owners into the hands of others who promise to work them.

In the old mining days great quantities of fluorspar were found in connection with the lead ore and were thrown aside as worthless. This waste has since been found to have a commercial value, and it

is reported that a large amount of it is being shipped to America, there to be used as a flux by steel makers; if this be true it is transported to and shipped from some other point in the Kingdom, as no record of that trade is to be found here. The question of whether these old Derbyshire mines are to be worked for the lead they contain, or whether the object of the new movement is to work them for the by-products, is one that does not appear to be definitely settled.

EXPORT TRADE WITH THE UNITED STATES.

The exports to the United States from Sheffield during the calendar year 1906 amounted to \$4,389,275, against \$2,877,361 in 1905. The value of the principal articles are shown in the following statement:

Articles.	1905.	1906.	Articles.	1905.	1906.
Blanco (pipe clay)	\$26,219	\$45,592	Pearl, and manufactures of	\$23,662	\$33,635
Brass scrap	138,864	198,421	Platinum sponge	20,366	51,084
Cutlery, all kinds	367,963	426,965	Shears (sheep and garden)	45,100	57,285
Hair	66,503	16,268	Steel, sheets, bar, wire, etc.	1,921,396	3,222,734
Horn, and manufactures of	128,120	143,029	Twist drills	4,364	15,898
Measuring tape, etc	35,840	48,706			

There was also exported from the Barnsley agency to the United States in 1906 articles valued at \$328,064, as against \$278,557 in 1905. The principal items were glue, valued at \$102,845; sheep dip, \$15,366, and pickled sheepskins, worth \$194,359.

BRADFORD.

DECLINE OF TRADE WITH THE UNITED STATES.

Vice-Consul T. L. Renton, in his annual report covering the commerce of Bradford, England, with the United States for the calendar year 1906, says:

There still continues to be a fair demand for American products, and new lines are occasionally coming on the market which attract attention. The mere forwarding of circulars or catalogues is insufficient to insure a trade being opened up. Unless a firm has a well-qualified man, able to show samples of the wares he is seeking to introduce to the best advantage, but little success is likely to accrue.

In silverware there has been a good exhibition of embossed and filled handle work, which has a very attractive appearance and is placed on the market at a cheap price. This line has been taken up with success by branches of trade which do not usually retail this class of ware. The quantity of silver embodied in the articles is not very great, being little thicker than thin paper, and care has to be exercised in usage. The silversmiths in England have for some time been endeavoring to secure a legal standard of gage for silver, but so far without success. In watches and clocks the leading makes are well represented and give every satisfaction. In this, as in other branches of trade, there is the possibility of harm being done by unscrupulous firms shipping over inferior articles. My attention has been called to watches which are got up to look well and have every appearance of being first-class, reliable timepieces, but which ulti-

mately prove to be little more than rubbish. It is this kind of a transaction which spoils a good reputation. It is quality, and quality alone, combined with a reasonable price, which will insure a regular consumption of American products in this district.

CANNED MEATS—EXPORTS TO THE UNITED STATES.

The provision trade experienced a most serious setback early in the year by the tinned-meat scare, which to a greater or less degree has affected all the merchants handling this class of commodity. Formerly the demand for these American foods was constant and ever increasing. Popular prejudice, however, stepped in and for a time the sale practically collapsed. It will take some time for confidence to be fully restored, but there are signs of a favorable character from the fact that inquiries are becoming more frequent for these prepared foodstuffs.

The value of the declared exports to the United States for the year ended December 31, 1906, amounted to \$15,565,042, being a decrease as compared with the previous year of \$2,428,437. This is mainly accounted for in stuff dress goods, which shows a falling off amounting to \$1,671,845, or nearly 40 per cent. The principal increases are: Machinery, \$473,356; cotton dress goods, \$218,524; mohair (goat's hair), \$105,828; iron and steel wire, \$83,447; jute waste, \$42,424, which is a new line of export; sheep skins, \$39,919, and card clothing, \$24,244. Decreases are shown in wool, amounting to \$978,319; cotton linings, \$310,403; stuff linings, \$230,360; cotton yarns, \$124,651; wool waste, \$47,101, and silk noils and waste, \$42,823.

The leading articles of export are shown in the subjoined statement:

Article.	Value.	Article.	Value.
Card clothing.....	\$92,922	Machinery.....	\$960,456
Cotton cloth:		Skins, sheep.....	696,509
Dress goods.....	563,610	Stuffs:	
Linings.....	3,244,618	Dress goods.....	2,771,250
Iron and steel, manufactures of:		Linings.....	1,100,977
Wire.....	315,528	Wool, and manufactures of:	
All other.....	1,352	Raw.....	4,384,307
Hair:		Cloth.....	56,407
Alpaca.....	38,416	Coatings (worsted).....	301,495
Mohair (goat).....	173,247	Yarn:	
Hides.....	126,264	Cotton.....	110,621
Jute, waste.....	42,424	Silk.....	301,641

INCREASE IN COAL MINERS' WAGES.

Consul Albert Halstead, of Birmingham, reports that the wages of the coal miners of England and Wales are to be increased by 5 per cent from the first "making-up day" in May. This applies to all underground labor and to the wages of surface labor engaged on the pit banks and screens in manipulating the coal. This will be the second advance of 5 per cent this year, the previous one going into effect on the first "making-up day" in January. The two increases are said to add about 9 cents per ton to the cost of mining the coal.

SPAIN.

TRADE OF CADIZ.

TRAFFIC WITH THE UNITED STATES—SALT PRODUCTION.

Consular Agent A. J. Bensusan, reporting on the trade of Cadiz, Spain, with the United States during last year, says:

The total importation from the United States amounted to 10,845,696 kilos (kilo=2½ pounds), consisting of the following articles: Corn, 70,639 kilos; instruments and apparatus, 8,849; iron and steel tubes, etc., 2,368; agricultural machinery, 52,732, and machines and parts, 6,227; meat and lard, 2,080; motors, 28,979; paints, 7,683; staves, 6,735,877; tobacco, 1,144,130, and wheat, 2,786,134 kilos. Other American articles that would sell best at Cadiz are lubricating oil and hardware. Paints are in good demand for vessels. The principal exports to the United States were 470,721 kilos of merchandise and 286,898 gallons of wine, mostly sherry.

The Salt Growers' Association, established twenty years and formed by all the salt growers and exporters in this region, was broken up February, 1906. A new association, called Unión de Fabricantes de Sales, appeared soon afterwards, but, a considerable number of growers and exporters remaining out, a ruinous competition was brought forward, and in consequence the association only lasted six months. Since then there is nothing to regulate prices, as was the case formerly, quotations being now much lower than when the association existed. The annual salt crop in this region is estimated at 100,000 to 120,000 lasts (a last is equal to 2½ English tons), of which 70,000 to 80,000 lasts are exported.

GENERATION OF ELECTRICITY.

INCREASED IMPORTATION OF FIXTURES—GERMANY LEADS IN SALES.

Consul-General B. H. Ridgely, of Barcelona, writes that according to a recently published report there are 1,140 generating stations in Spain, with a total capacity of 99,513,170 kilowatts. The consul-general continues:

Madrid produces the greatest quantity of electric fluid, 15,998 kilowatts. Barcelona follows with 8,082 kilowatts. The total number of incandescent lamps in Spain for street lighting is 119,105, with 1,427,498 candlepower, and 1,691 arc lamps of 1,214,476 candlepower. For private or domestic use there are 1,593,402 incandescent lamps of 13,333,783 candlepower and 8,051 arc lamps of 5,303,777 candlepower. There are also 3,293 electric motors with a total capacity of 25,382 horsepower.

The importation of incandescent lamps and globes and electric light fixtures into Spain has reached considerable proportions and is growing steadily. Statistics for 1906 are not yet available, but in 1905 incandescent burners mounted and unmounted were imported to the value of \$90,000, of which \$50,000 worth came from Germany and \$27,000 from France. In spite of the fact that several small factories are now manufacturing these goods in Spain, imports in 1906 are presumed to have increased at least 25 per cent.

Arc lights, electric light meters, current-cutters, and other similar electric light appliances were imported to the amount of \$302,000, as follows: From Germany, \$189,856; France, \$83,145; Austria, \$10,067; Switzerland, \$5,985; the United States, \$5,429, and other countries, \$7,518.

The Spanish customs duty on incandescent burners mounted is \$1.93 per 2½ pounds; unmounted, \$2.89. The duty on arc lights, electric light meters, current-cutters, etc., is 48 cents per 2½ pounds. [The names of the leading dealers in electric light fixtures in Barcelona are indexed at the Bureau of Manufactures.]

ITALY.

MUNICIPAL OWNERSHIP.

OPERATION OF GAS PLANT AND OTHER ENTERPRISES AT PALERMO.

Consul William Henry Bishop, of Palermo, in the following report shows the development of the municipal ownership of public utilities in Sicily's capital:

The past year has been marked by a considerable increase in the movement toward municipal ownership. The acquisition of the existing gas plant was voted, under a referendum, in April, 1906, there being 7,988 votes in favor, against 112 opposed, out of a total electorate of 18,821. The management was assumed by the city on November 1, the sum paid being 4,750,000 lire (\$916,750). The working force in the service of the private company was retained, and one of the first measures taken was to reduce the hours of labor of an important part of this force from twelve to eight per day, thus creating in that respect a higher scale of expense. No lowering of the price of gas is expected at present. Indeed, much protest has already been made by consumers on that account, and also on account of its alleged poorer quality, together with a lack of sufficient pressure to deliver it properly to the more distant parts of the towns, while the endeavor to get such pressure increases the bills of those living near the distributing point. The mayor issued an explanation stating that a large addition to the system of piping is needed, and asked the public to have patience till the various difficulties of the new enterprise can be overcome. The committee of management, offended by the severe criticism to which they were subjected, resigned. Following upon this the municipal council resigned in a body and the mayor with them, but it is hoped that these resignations will be withdrawn.

THE CHARGE FOR GAS.

The price of gas remains at 24 centimes per cubic meter, equivalent to about \$1.36 per 1,000 feet. This includes a tax of 4 centimes the cubic meter imposed by the national and city governments, one-half by each. Gas for cooking and industrial purposes is a trifle less, but as it is necessary to rent a separate meter for it, the difference, where consumption is moderate, is scarcely worth mentioning. The annual rental for meters is established as follows: Meters of 3 or 5 burners, \$1.04; 10 burners, \$1.73; 20 burners, \$2.31; 30 burners,

\$2.50: 40 burners. \$4.05: 60 burners. \$5.21: 80 burners, \$6.94: 100 burners. \$8.19: 120 burners. \$12.15.

The municipalization of bread was adopted by referendum in December, 1905, there being 5,864 votes for and 1,086 against it. The sum of 2,000,000 lire (\$440,000) has been appropriated for a large flouring mill with corresponding bakery, and also works for making macaroni. The plans of the buildings are prepared, and bids have been invited for the requisite milling machinery. I have had considerable correspondence with an American firm in that line about entering the competition.

MAXIMUM PRICES FOR BREAD AND MACARONI.

The beginning of municipal control over bread dates from January, 1903, when the *dazio*, or local revenue tax, was taken off flour. To insure the resultant benefit to actual consumers, a decree was made fixing the maximum price for bread. Difficulties arose from the natural discontent of the bakers. Military bakers were secured from the regiments in garrison here to avert a threatened bread famine. A flouring mill of medium capacity was hired on favorable terms and appears to have given very good results financially. This has supplied a certain part of the bread required by Palermo up till now. The urgency for the large new mill mentioned is increasing by the fact that in February, 1906, extensive flouring mills, which were the principal source of supply for the city, were burned down.

There has just been issued an order fixing the maximum price for macaroni, reducing it to 45 centimes a kilogram, or 4 cents per pound; and the municipal agents and police are charged with seeing that the order is obeyed. A protest has followed from the macaroni makers, who allege that the price of macaroni wheat, from which their product is made, was higher than before at the very time of the reduction.

OPPORTUNITY FOR AMERICAN MEAT.

In the last part of the year 1906, it having come to the notice of the mayor that meat was unusually high, he endeavored to reduce it by a municipal service to supply refrigerated meat. Arranging with the *magazzini frigoriferi*, or cold-storage warehouse (first established about three years ago at Genoa) for refrigerated meat from Argentina, he brought down the price for a while about a third, making the municipal product about 17 cents per pound, as against the butchers' price of about 25 cents per pound. The service continued, however, but a few weeks, and was suspended through lack of proper refrigerating cars for the transport. Only three of these—and even these, I believe, not of the most modern sort—were available. The long haul from Genoa required ten days or more, and finally there was no branch cold-storage house to receive the meat on arrival, so that some of it spoiled before it could pass into consumption. It would present an uninviting appearance and consumers ceased to call for it. A branch refrigerating plant to cost \$40,000 is now contemplated, and some preliminary correspondence has been opened with Buenos Ayres, to see if means can be devised of obtaining supplies direct from there and thus avoiding the great expense and difficulty of dealing through Genoa. Up to last advices the letters of inquiry have remained without reply. The meat here treated came from the *Stabilimento "La Blanca"* at

Buenor Aires. There was a demand for the cheaper meat also from many other places in Sicily, and a little was furnished them. The whole island, which is very populous, would be a ready market; and this is a matter that might well be looked into by American houses in the trade. It is not improbable that vessels for this service from American ports could be put on with profit.

It should not be supposed that the apparent paternalism herein described is merely arbitrary or a survival of medieval practice; it is in full accordance with law. An Italian statute of March, 1903, supplemented by the appertaining regulations of March, 1904, permits to cities and towns the direct assumption of public utilities, even to the extent of an entire monopoly if desirable. They may also engage in a partial way in business of various kinds specified, such as the supply of bread and meat, and this may be done upon the initiative of the mayor and his counselors, whereas a referendum to the people is required for assumption of the whole service.

THE COST OF LIVING.

Municipalization is furthered by the very high cost of living, of which there is at present great complaint. The leading newspaper has lately been making an inquiry on the subject, inviting the opinions of its readers as to the causes and a remedy. No effective remedy has been proposed. The situation bears hardest on people of moderate means. It is claimed that Palermo and the other chief towns of Sicily are becoming quite impossible as a residence for such people. It is called a most grave economic crisis.

The emigration problem in some form is almost always at the front, and various correspondents attribute the high cost of everything to the American emigration, which deprives agriculture and the trades of the needed hands. Others attribute it to ancient prejudice and lack of enterprise, and even to a certain insecurity of society, which prevents the circulation of capital and the development of the great resources of the island. Still others find it only in a growing prosperity and the more luxurious scale of living by all classes, which gives rise to the pressure of a largely increased demand upon a stationary supply. Few observe that the crisis of the increased cost of living is not localized to Sicily, but that a general rise of prices is almost world-wide and is a phenomenon of our recent times.

The case of the military officers is cited as among those of peculiar hardship. The pay of this numerous class, which has always been one of the ornamental features of foreign life, is small, and it is now asserted that they can no longer afford their modest expenses at the café or to take a ticket to the theater even at the reduced rate accorded them, but must live in anxiety and deprivation.

BELGIUM.

ANTIQUES ABROAD.

ADVICE TO AMERICAN TOURISTS IN BUYING CURIOS.

Consul J. C. McNally, of Liege, reports that the season for the usual influx of American tourists into Europe is approaching, and among the others benefiting thereby the dealer in antiques is making

extensive preparations to part with his "ancient" creations at the usual sacrifice price. The consul continues:

In anticipation of a good season, the manufacturers of antiques have been kept busy. The aging season is now on, and when the time comes for placing the articles on sale the ancient appearance will be perfect. During the winter the dealers from the various countries of Europe have worked through the numerous curio shops here and have bought up at most reasonable prices articles which they know will appeal to the curio seeker. An English dealer has sent off several hundred kilograms (kilogram 2.2 pounds) of pewter of modern make to be put out as of ancient brand. Many old pieces of furniture of the various epochs—Renaissance, Louis Quatorze, Quinze, Seize, Empire, etc., fallen to decay, with but a square foot of the whole in a fair state of preservation, are rebuilt along old lines and sold for the genuine old piece.

To accuse a dealer of a false representation would elicit the reply that the restoration made the piece more valuable than before, and the fact that some part of the piece remained intact seems to ease the conscience of the vendor. The fact is that a great majority of the dealers in antiques have in stock a supply of cheap imitations and counterfeit representations to be unloaded on the ignorant visitor who wishes to carry home a souvenir of the Old World.

CURIO SALE METHODS.

The deception of the expert collector is by no means rare, and yet one hears of Americans returning with antiques representing considerable money, bought solely upon the lavish representations of the dealer. It should be remembered that the dealers pick up their stock in the out-of-the-way places, usually in the interior of the country. This should be a hint to other purchasers, who in looking for some particular articles, should stop off in places outside of the well-beaten path. The chances of getting the veritable article are good, while the price will ordinarily be a hundred per cent less. To purchase from the dealers in the large cities is to pay excessive prices for questionable goods.

The Mecca for the curio seeker is Bruges, the ancient church splendor and architecture of which attracts the European traveler. This city is noted for its valuable finds. The buyer does not stop to consider that the dealers for years past have swept every corner of anything savoring of antiquity, but continues to pick up at cheap prices whatever is offered. The dealers are active in putting their wares in the way of the traveler, and have either established agencies at a place such as Bruges or send in goods to the local dealers to be sold on commission. The seaside resorts have an unusually large accumulation during the season, which possibly represents the contributions of several dealers. The prices are extremely high. Great care must be exercised in the purchase of these ancient articles. The American traveler (always reputed a millionaire) is considered the prey of these designing dealers.

PICKING UP RARE FINDS.

A visit to the workshops of antique dealers will show them pounding modern brass to represent the old-time article. Worm-eaten and

decayed furniture is made over into pieces representing the old Flemish type that would deceive the ordinary collector. The dealers carrying the greatest assortment of valuable articles and well housed on a principal street should be as carefully investigated before buying as the small dealer in a back street. Even these small one-room dealers are supplied by the larger ones with articles that will catch the eye. It is from just such shops that comes the report of some valuable original articles purchased for a song, etc. Small cigar shops, cafés, and other unpretentious business places are usually provided with an old painting (made to order), a copy of some well-known work, which will at once excite the curiosity of the customer who is particularly influenced by the surroundings. A good price is paid, and the buyer writes his friends that he picked up a "great find," etc.

ROUMANIA.

DEVELOPMENT OF COUNTRY.

INDUSTRIAL, FINANCIAL, AND COMMERCIAL CONDITIONS.

The following information concerning the population, agriculture, minerals, manufactures, communications, and finances of Roumania is furnished by Consul-General Montgomery Schuyler, of Bucharest:

The Kingdom of Roumania has an area of 50,702 square miles and a population of over 6,000,000, the latter an increase of 40 per cent over 1866, from which year the modern Roumania may be said to have begun. The climate is extreme, the summers being very hot and the winters long and cold. By its geographical position on the Danube and the Black Sea Roumania is well situated to engage in foreign commerce, and when its industries have become better developed there should be a very large increase therein.

AGRICULTURE AND MINERALS.

The agricultural production consists of wheat, corn, millet, barley, rye, beans, and peas. In 1866 the total export of cereals was 547,000 tons, while in 1905 the export was 2,500,000 tons. In the latter year the total value of the agricultural products of the country was estimated at more than \$180,000,000. Considerable good wine is obtained from the vineyards, and fruits are largely raised. The forests are of great extent, comprising some 6,250,000 acres, but little has yet been done, except in the Crown lands, for their scientific exploitation. Roumania's chief riches are her cattle and sheep, and in former times there was a large trade in the export of cattle, pigs, and buffaloes. A concession has just been given to an English company for exporting meat to England, and it is hoped that this may be the beginning of a large trade in meat. The Government gets about \$500,000 annually from the fisheries. The soil of Roumania is rich, but droughts sometimes ruin the crops. The peasants largely till the soil by the most primitive methods, which have been used for centuries, and except in the Crown lands there is very little attempt at scientific farming.

Minerals and precious metals are said to abound in Roumania, but thus far only salt and petroleum are obtained. The petroleum industry is advancing rapidly and will probably become one of the most important sources of revenue. Large tracts of supposedly petroliferous lands are as yet unexploited, and other sections are only just beginning to be worked. At present the production of petroleum is chiefly from the district of Prahova. There is said to be \$30,000,000 capital invested in this industry, mostly by German, Dutch, French, Italian, and American interests. An American company has established a plant near Ploesti. The next few years will see a great increase in the capital invested, for the production of oil has greatly increased in recent years. The output during the first six months of 1906 amounted to 380,000 tons, against only 5,000 tons for the year 1866.

MANUFACTURES AND FOREIGN COMMERCE.

Roumania is at present, and must remain for years, chiefly an agricultural country. Its vast grazing lands and fertile fields constitute the real wealth of the Kingdom, and in years of bad crops the whole country feels the lack of money. There are a number of very rich proprietors, but the peasants are often extremely poor. In order to establish industries on a large scale much outside capital is needed.

The situation of Roumania is good for the extension of its exports, since it has on its boundaries the markets of Servia and Bulgaria and, through the port of Constanza, direct communication with Asia Minor and the Black Sea ports. The total foreign commerce of the Kingdom for 1904-5 amounted to over \$158,900,000, viz, exports \$91,450,000; imports \$67,450,000.

The Jubilee Exposition held in Bucharest during 1906 attracted considerable attention from the various commercial countries of Europe. The participation of the United States was limited to a few novelties in automatic slot machines, and to some agricultural machinery, shown through an English firm.

In 1866 there were only 44 miles of railway in the country, from the town of Giurgevo, on the Danube, to Bucharest; at present there are more than 1,976 miles, stretching in every direction over the country, the estimated cost having been \$177,000,000. There are 11,500 miles of telegraph and a large telephone connection over the country. At Constanza there is a wireless station, and a submarine cable to Constantinople.

At Galatz and Braila on the Danube there are large docks, and others are being erected at Constanza. There are many steamers on the Danube, and direct communication from Braila to Rotterdam, and from Constanza to Constantinople and Black Sea ports. The Roumanian Government steamer service between Constanza and Constantinople has recently been extended by direct steamers from Constantinople to Smyrna and Alexandria. By the erection of the new docks at Constanza, Roumania will have a port during the winter. A number of storage tanks for the petroleum industry are also in course of construction at Constanza. A fine metal bridge has been built over the Danube between Fetesti and Cernavoda, of a length, counting its viaducts, of over a mile.

The national debt of the Government has increased from \$16,000,000 in 1866 to \$288,500,000 at present. The large sums thus involved have been spent in establishing public works necessary to the development of the country, such as railroads and other communications and in public buildings and other improvements. The recent policy of the Government to cut down unnecessary expenditure and to put the finances on a satisfactory basis is having good results. The present minister of finance is working hard to improve the finances of the Kingdom. The budget for 1906 gave a surplus of some \$9,000,000, due to the good crops of the last two years.

TURKEY.

RUBBER GOODS TRADE.

INCREASING SALES—AMERICA'S SHARE OF THE TRADE.

Vice-Consul W. Smith-Lyte, writing from Constantinople, in regard to the sales of rubber articles in Turkey, says:

The estimated value of rubber goods imported into Turkey is as follows: Rubber foot wear, \$370,000 to \$430,000, and all other rubber goods, \$150,000 to \$170,000. The quantity of rubber overshoes imported represents some 550,000 to 600,000 pairs, divided in the following proportion: 370,000 pairs for men, 125,000 for women, 25,000 for children, 20,000 for boys, and 30,000 for girls.

Some ten years ago the sales in this market did not exceed 450,000 pairs, of which three-fourths came from England. At about that time for three consecutive years the English deliveries were of inferior quality. Their competitors were not slow to benefit by this and succeeded in getting a fair hold of the market. From Russia was imported a really good article, Germany and Austria made efforts to increase their sales and succeeded, the United States was not idle, and even Sweden succeeded in making a few sales. Since then the quality of English rubbers are said to have improved and would seem to have found favor again with the public; on the other hand, it is said by some that the Russian rubber shoes have deteriorated somewhat. The Russian article is considered the best on account of its great durability and excellence of material, and this notwithstanding the fact that cheapness is always the first consideration in this market.

SOURCES OF IMPORTATION.

The sources of importation according to countries are as follows: America's share in the total is represented by 3,000 to 3,500 cases, valued at \$85,000 to \$95,000. The brands imported are the "Candee," "Federal," and "Para." They are admitted to be the lightest and of the most varied and elegant shapes and cheapest in price. They are most appreciated by the wealthy classes. They are said to be not durable, possibly owing to the lightness of material. If the medium of durability could be combined with lightness, they would undoubtedly clear the market of all competitors.

A firm with works in Austria and Germany controls the market in girls' and children's lines. Their sales amount to 2,500 to 3,000 cases valued at \$85,000 to \$100,000. The prices of these rubbers are moder-

ate and the makers will vary their shapes on small orders, while other makers expect an order of not less than 5,000 pairs in order to suit their customers' requirements. An Edinburgh company is represented by 1,500 to 1,700 cases of the first quality, valued at \$60,000 to \$67,000; second quality, 400 to 500 cases, \$12,000 to \$15,000. This is the oldest rubber shoe on the market. Some ten to twelve years ago their sales amounted to between \$125,000 and \$175,000, but their sales have diminished since the advent of American and Russian competitors. A St. Petersburg company is represented by 1,200 to 1,500 cases, valued at \$70,000 to \$90,000; another Russian company by 500 to 700 cases, valued at \$20,000 to \$27,000. There is no doubt that the Russian rubber shoe has the reputation of being the most durable on the market and is most in demand by the working and middle classes. It is, however, heavy and clumsy in shape. France is represented by some 1,000 cases, valued at \$33,000, imported in two qualities, firsts and seconds, and Sweden is represented by 200 to 300 cases of second quality, valued at \$4,000 to \$6,000.

The bulk of the business done is in the ordinary plain self-acting shoe for men, women, boys, girls, and children. A fair percentage, which is gradually increasing, is done in the storm self-acting and storm slipper, as also in women's embossed with designs and men's fairy boots.

SALES OF SPECIALTIES.

The annual import of rubber for marine and industrial purposes amounts to about \$60,000, consisting of sheet rubber, tubing, and other articles, including asbestos rubber packing. At one time these articles came entirely from England, but at present Germany almost monopolizes the market owing to its low prices. The current qualities of sheet rubber are sold at 40 to 44 cents per pound. Germany also furnishes better qualities. It is owing to the facilities in payment afforded the importers that Germany has succeeded in securing the monopoly of the market. England still holds its own in asbestos packing of all kinds, although Germany is also in the market with this article, the total importation of which is estimated at \$10,000 per annum.

France exported to Turkey rubber for industrial purposes to the extent of about 25,000 pounds during the year 1903. But these sales must have been at ports other than Constantinople and directly to certain industrial concerns, because articles of French origin are quite unknown on the market.

Rubber articles sold by pharmacies represent a total annual import of about \$20,000. Germany sells the greatest part of these articles, owing to low prices.

Articles of French manufacture are much appreciated, and in spite of a great difference in price are sometimes sought after, as, for example, rubber syringes and surgeons' probes, but even then cheapness is the first consideration, and in most cases that which costs least has the preference, quality not being taken into account. Italy has also reached this market with a few of these articles. The various articles imported for medical purposes are: Rubber bulb syringes (pear shape), red rubber tubing, articles in hard rubber, probes, injection furnishings, rubber teats, elastic stockings, and waterproof rubber cloth for hospitals.

The total value of waterproofs and rain coats imported amounts to about \$70,000. They are sold at \$2.50 to \$6, and are imported from England, Germany, and especially Austria. The cheapest lines come from the latter country.

The total imports of rubber goods into Turkey exceeds \$500,000, of which America's share does not exceed one-fifth, which, while creditable, can still be increased.

RUSSIA.

TRADE OF BATUM.

DECREASE IN FOREIGN TRADE—TIFLIS THE COMMERCIAL CENTER.

Consul W. W. Masterson in his report reviewing the commerce and industries of Batum, Russia, says:

The city of Batum, lying on the eastern shore of the Black Sea, is next to Odessa, the most important and largest shipping port in southern Russia, and is the gateway for the passing of people and merchandise into and out of the Caucasus, Persia, and the trans-Caspian country as far east as the Chinese Empire. The extent and importance of this country is great, but by far the richest in natural resources, oil, timber, and fertility of soil is the Caucasus. On the eastern end of this division lies the great Russian oil field, on the western end are immense deposits of copper; while zinc, manganese, iron, tin, and many other metals are found in most cases in extensive deposits.

The city of Batum, while it is the port for this country, unfortunately is not the market of the Caucasus, and, aside from the goods and wares that are used within its confines, the trade is small. The city of Tiflis, some 250 miles inland, with a population of 300,000, is really the principal market, as the prices are regulated and adjusted for all trade articles at that point.

Until some four years ago there was considerable industry developed in Batum in the importation of tin and manufacture of cases for the shipment of petroleum. At one time 8,000 to 10,000 men were employed in this work, but strikes and disturbances have gradually interfered with the industry to such an extent that only a few hundred men are now employed. The more important of these firms have moved their plants to Alexandria, Egypt, and other Levantine ports, getting the oil from here by tank steamers.

The latest official figures (1905) give the imports into Batum as being valued at \$2,737,678, against \$10,967,772 in 1904, the principal decreases being in tin plates and machinery, the former dropping from \$3,355,525 to \$638,949, and the latter from \$4,153,675 to \$1,339,341. Some of the other imports were timber, valued at \$133,435; sulphur, \$23,877; copper, iron, and steel, \$83,695; and tin, lead, etc., \$150,354. The exports from Batum during 1905 amounted to \$12,828,569, against \$26,481,792 for 1904. The decrease was chiefly in the exports of petroleum products, which fell from \$21,056,155 to \$8,148,119. The other principal exports were wool, valued at \$1,336,242; cocoons, raw silk, etc., \$2,117,848; licorice root and paste, \$440,382, and grain and flour, \$275,746.

THE COTTAGE INDUSTRY.

DEPRESSION CAUSES ARTISANS TO TURN TO OTHER WORK.

According to Consul Alexander Heingartner, of Riga, the conditions governing the politico-economic life of Russia during the last two or three years have influenced manufacturing industries unfavorably; the output of several branches has been materially reduced, and that of others has ceased entirely. The consul continues:

The same fate has overtaken the cottage industry, a type that plays a very prominent rôle in the economic life of many districts of the Empire. This is confirmed by the reports of those zemstvos in whose governments this form predominates. Thus in the government of Moscow, the unemployed tailors of the districts of Vereisk and Bogorodsk have taken to lumbering and the gold-leaf beaters of Dmitrovsk to picking stones off village fields.

The following crafts have suffered most from the hard times: The manufacturers of brushes, the workers in brass fittings for harness, joiners, carriage makers, makers of adding machines, the weaving industry, tailoring, the gold-leaf beaters, etc. For instance, the price before the war of the tarantass (country cart) was 7 to 9 rubles, the present price not above 4½ rubles; a sledge that formerly sold for 7 rubles now sells for 4 rubles. As an example of the fall in wages, a monthly wage for weavers of 30 rubles was not uncommon; now 15 rubles is the most that can be earned, the average monthly wage ranging from 4 to 8 rubles, with a working day of sixteen hours. (Ruble 51½ cents).

A TYPICAL VILLAGE.

As a type of one of these industrial villages, that of Pavlovo can be taken, a description of which is given. This village is situated on the left bank of the river Oka, in the government of Nijni Novgorod, and has a population of 12,000. The chief employment of the village is the production of articles of metal, the manufacture of locks alone giving employment to 1,400 cottages, with 1,500 male artificers. The form most produced is that of padlocks, ranging in price from 3 copecks to 6 rubles. Latterly the manufacture of box and door locks has been taken in hand since the opening in the village of an industrial school with model workshops. Besides locks the following steel wares are manufactured: Knives, forks, scissors of all kinds, razors, surgical instruments, beams for scales, corkscrews, shovels, etc., and small castings of tin and lead. In the manufacture of padlocks the prevailing type of industry is that of the family, for with the exception of the bows and springs, all the parts are made by the artificer and the members of his family of 10 years old and upward, the employment of outside help being the exception. According to kind and size of lock, a family is able to manufacture weekly 10 to 150 locks. The earnings of a family engaged in the manufacture of locks varies from 2½ to 4 rubles a week, the daily wage from 35½ to 57 copecks for eighteen hours' work. The yearly earnings are from 93 to 149 rubles.

PLANS FOR AID.

Excluding the products of the larger factories, which find their way direct to Moscow and the larger cities, the entire trade of the

district is in the hands of local middlemen. Many steps have already been taken with a view of ameliorating the lot of the cottager and of giving him a larger share in the product of his industry, and individual zemstvos, as that of Nijni Novgorod, by the opening of industrial schools and workshops, founding artels (workmen's societies), establishing depots for the sale at cost of the raw material required by the craftsman, and also with money grants for the maintenance of these institutions, and to provide medical aid to the district, have done much to support and encourage the cottage industries in their own governments.

In view, however, of the large population engaged in this type of industry, unity of action and larger grants than the individual zemstvos are capable of supplying are indispensable, and the central Government is being called upon to assist in the work.

TRADE SCHOOLS.

PROMOTION OF HOME MADE ARTICLES.

Consul-General Richard Guenther, of Frankfort, furnishes the following information, from German sources, in regard to establishing trade schools in Russia:

In St. Petersburg an Association for the Promotion of Home Made Articles is in course of organization. It is projected to establish trade schools and workshops in all the principal industrial districts of Russia in order to instruct the workers. Technical improvements are to be introduced and artists and technical experts will be employed to furnish designs and to superintend the labors.

Artists and artisans will also be sent to foreign countries for the purpose of studying the markets and artistic proclivities existing there, so as to gather useful information in adapting the productions of the Russian home industries to foreign taste. Agencies are to be established in foreign countries for the sale of these products. The association furthermore intends to organize the trade in home made articles in a uniform manner and to supply raw materials to the workers.

ASIA.

ASIATIC TURKEY.

DEVELOPMENT IN THE ORIENT.

MODERN UTILITIES BEING ADOPTED—COMMERCIAL STIMULATION.

Consul-General G. B. Ravndal, in his annual review of the commercial and industrial life of the Beirut consular district, which includes Damascus, Haifa, Tripoli, and the island of Cyprus, furnishes some interesting facts, as follows:

In consequence of the extension of its railroad facilities, notably the Aleppo branch, Beirut during the past year has added vast and promising regions in Arabia, Mesopotamia, and Asia Minor to its tributary territory. Beirut has become a commercial center of the first importance in western Asia, and her trade is bound to record higher and higher figures as years roll by and the surrounding country is developed. As things stand, the railroad from Beirut into the interior can not handle the increased traffic, and plans are being perfected for a tunnel through the Lebanon, providing for an easier grade and increased capacity. Steps are also being taken looking toward the enlargement of Beirut's protected harbor, the only one of its kind on the coasts of Asia Minor and Syria.

The prospects of the city of Beirut as a seaport and trade center are graphically illustrated by the rapidly enhancing cost of living and the rise in real estate prices and house rents, the record of increase being 25 to 40 per cent over rates ruling two years ago. Beirut is cementing its leadership as an educational and literary center, and is becoming known in that rôle throughout western Asia and the Levant, recalling the unrivaled fame the law school at Beirut enjoyed throughout the Roman Empire in past ages. At Beirut are located customs and quarantine headquarters for the Syrian and Caramanian coasts.

Owing to the extension of the Beirut-Damascus railroad southward to within a few hours' ride by carriage or horseback of Jerusalem, connecting at Der'at with the Haifa railroad, which covers Nazareth and Tiberias, Beirut bids fair to become the chief center of the immense tourist traffic of the Holy Land of Christendom. A carriage road is being built from Galilee, through Samaria, to Jerusalem. On the Sea of Galilee are being placed steam launches. By railroad from Damascus, the tourist can visit the famous ruins of Petra, southeast of the Dead Sea, and other historic sites beyond the Jordan.

Last year's exports from Beirut amounted to about \$7,000,000, consisting largely of silk thread, the amount being 3,900 bales, valued at \$4,000,000, and waste silk and cocoons, at \$800,000. Other items of exportation were wool worth \$500,000, barley \$400,000, and

tobacco \$300,000. Exports to the United States, according to consular invoices, show the following shipments in 1906: Arabian horse, \$407; bitumen, \$1,941; books (Arabic), \$247; cotton lace, \$9,013; oriental sundry goods, \$1,086; personal effects, \$600; provisions (Syrian), \$24,809; rugs, \$5,489; tombac (Persian), \$823, and wool, \$279,731. The exports to the United States from Beirut (not including Damascus, Haifa, and Tripoli) during the calendar year of 1906 amounted to \$324,146, as compared with \$169,969 for 1905 and \$143,187 for 1904.

IMPORTS AT BEIRUT.

Beirut's imports during 1906 amounted to nearly \$15,000,000, consisting of—

Cotton goods from Great Britain and Italy (small quantities from Germany, Austria, and the United States) of an approximate value of \$5,000,000.

Woolen goods from Great Britain, Belgium, France, Italy, and Austria, \$1,000,000.

Cloth from Great Britain, Austria, Germany, Belgium, and Italy, \$800,000.

Sugar from Austria and Russia, \$700,000.

Coffee from Brazil and Arabia, \$500,000.

Yarn and thread from Great Britain and Italy, \$440,000.

Rice from India, Italy, and Egypt, \$400,000.

Coal and patent fuel from Great Britain, \$400,000.

Petroleum from Russia and the United States, \$360,000.

Lumber from Austria and Asia Minor, \$300,000.

Silk goods from France, Italy, Germany, and Switzerland, \$300,000.

Sacks and jute cloth from India and Great Britain, \$240,000.

Hides and leather from France, Belgium, Germany, and the United States, \$200,000.

Watches and jewelry from Switzerland, Germany, Belgium, Holland, France, and Great Britain, \$200,000.

Iron and steel from Belgium, Germany, and Austria, \$200,000.

Linen goods from France, Italy, Germany, Switzerland, and Ireland, \$175,000.

Glassware and china from France, Germany, Austria, and Belgium, \$175,000.

Flour from Russia, France, Hungary, and Turkey, \$175,000.

Drugs and medicines from France, Great Britain, and the United States, \$150,000.

Canned groceries from Great Britain, Italy, France, and the United States, \$150,000.

Small hardware from France, Germany, Austria, Italy, Great Britain, and the United States, \$150,000.

Imports from the United States comprised petroleum, oleomargarine, beer, canned groceries, leather, wire nails, cotton goods, drugs, paints, machinery, hardware, furniture, etc., amounting to about \$350,000, as against \$272,387 for the year ending June 30, 1905. American petroleum entered into competition with the Russian product during the past year, and is likely to succeed, provided a reasonably high standard of quality is maintained.

SALES OPPORTUNITIES.

Petroleum engines are becoming an important article of commerce throughout all western Asia. American oil engines have not so far proven their superiority over British and German machines. These engines are used for irrigating and milling purposes and the demand for them is constantly growing.

In lumber local stocks are greatly reduced and prices high owing to the inability of the Austrian exporters to meet the requirements of these markets. I am inclined to believe that Beirut presents a favorable opening for American timber and sawn lumber, and I

stand ready at any time to furnish the necessary information as to qualities and sizes.

Singer sewing machines reign supreme in these parts. They are manufactured in Great Britain and exported to Beirut from Glasgow. In our statistics they do not, any more, figure as imports from the United States.

OPPORTUNITY FOR AMERICAN COTTON GOODS.

In cottons the American manufacturers ought to have a much larger share of the Syrian and Mesopotamian trade. Locally the importation of this commodity amounts to some \$5,000,000. In Turkey in Asia as a whole the consumption of cottonades from abroad probably exceeds in value the sum of \$30,000,000. Contrary to the general belief, the actual quantities of American cotton fabrics sold in these and adjoining markets, including Persia, Egypt, and the Sudan, are comparatively insignificant. At Beirut our cotton textiles are just beginning to break in. It would seem that the obstacles of terms of payment, freight rates, and time of transit are gradually being removed, and that now the main question is one which will presumably be solved before long by the American manufacturers, and which concerns the taste and preference of Syrians with regard to dimensions of pieces, quality, design, and color. If once our manufacturers thoroughly satisfy themselves as to what the people of western Asia want in the line of cottons and proceed with an honest and earnest effort to satisfy their wants, it is highly probable that a fair share of the cotton-goods trade of these regions will be their reward. It should be understood, however, that patterns which suit Beirut may not suit Adana, and that stuffs which suit Bagdad may not suit Port Sudan. These various races have their peculiar predilections, and they are entitled to have them respected. No expert representative of American manufacturers of cotton goods has ever visited this market.

DAMASCUS.

Nasif Bey Meshaka, our consular agent at Damascus, in his annual report, regrets the absence of any regular steamship connections between the United States and eastern Mediterranean ports; also the reluctance of American exporters to send samples to bona fide commission agents in Damascus; also the impracticability of American catalogues sent out here, which should be printed in French or Arabic instead of in English; also the mistrust and suspicion displayed by American manufacturers in the matter of credits and settlements.

Mr. Meshaka states that Damascus presents a fair opening for American shoes, rubber goods, leather, nails, saws, sewing machines, stoves, pumps, bicycles, agricultural machinery, windmills, petroleum, oleomargarine, canned groceries, watches, clocks, and hammocks.

"Business in general," says Mr. Meshaka, "during the last two years has been very brisk. Although the merchants' returns have not been very great, owing to competition, still a great deal of trade has been done, and in this Germany has profited most on account of the facilities she gives her customers."

Various industries of Damascus flourished, such as silk and cotton weaving, the manufacture of furniture, inlaid with mother-of-pearl (in reality, the shell of an oyster found on the banks of the Tigris),

the manufacture of copper and brass work, handsomely hammered out, inlaid with silver or enamel and engraved.

The Damascus-Mecca railroad is completed up to 450 miles and quite recently a staff of engineers went down to Medina to survey the line to Mecca. Construction work is carried on most assiduously. By this line the pilgrims from Damascus gain more than thirty days, which but for the railroad they would have to spend on camel back, through rain or burning sun, according to the season of the year. The new electric lighting and street car service of Damascus has already been described in a special report.

TRIPOLI.

From the annual commercial report of our consular agent at Tripoli, Dr. Ira Harris, I quote as follows:

The number of emigrants from this port is 40 per cent greater than last year. A number of young men who had spent some time in the United States formed themselves into a company and have agents in every large village, who talk of the advantages of emigration, sell tickets (by steamer and railroad), and personally conduct parties on board the steamers. In times past every emigrant had to gain his or her knowledge by experience. Now they know before sailing what they are to do and expect when they reach the ports of the United States. This business of emigration has been worked out so fine that they know here every change made in the regulations for the inspection of emigrants, especially that pertaining to the inspection of those having disease. Many now go by way of Mexico instead of Canada.

HAIFA.

As a result of the building of the Haifa-Der'at railroad through Galilee, Haifa is steadily growing in wealth and population. Much of the grain from the Hauran, formerly carried by camels to Acca, is now brought to Haifa by train. The latter city needs a new custom-house near the railway station and warehouses. The railroad is doing good business. Some years ago the Deutsche Palestina Bank opened a branch office at Haifa and this year the Imperial Ottoman Bank has followed suit. These banks lend money to small dealers at 9 per cent, and although the interest is high, the banks have proven of much general benefit to the people. "Turkey," says Consular Agent T. J. Struve, "intends to make Haifa a central place. Five new telegraph lines have been started and the building of a harbor is likely soon to be undertaken."

CYPRUS.

In a previous report on the commerce and industries of the island of Cyprus it was shown that the total of exports for 1900 had reached the sum of \$1,841,380, while the imports amounted to \$1,862,960. Those figures represented a fair increase as compared with the statistics of former years. I now submit comparative tables showing the exports and imports during the five years following:

	1901.	1902.	1903.	1904.	1905.
Imports	\$2,260,190	\$2,172,290	\$1,933,306	\$2,362,380	\$2,410,896
Exports	1,944,300	1,638,780	1,937,705	2,442,005	2,191,206

The figures of 1905-6 for imports are the highest on record, and the exports for the same period have been exceeded only in two

years—1991-2 and 1994-5. The customs revenues of the last fiscal year were the largest known in Cyprus. Leading articles of export were, in the order named: Barley, carobs, animals (mules, oxen, and donkeys), wheat, wine, silk cocoons, rasins, wool, lemons, oranges, and pomegranates, linseed, hides and skins, gypsum, cotton, oats, and cheese.

Among the imports, cotton piece goods hold the first rank with a value of \$220,630 as compared with \$126,675 in 1900-1901. Other important items were cotton yarn and thread, \$167,435; leather and leather manufactures, \$125,990; woollen manufactures, \$119,650; timber and firewood, \$111,970; sugar, \$84,645; tobacco leaf, \$81,275; haberdashery and millinery, \$53,210; flour, soap, olive oil, petroleum, sacks, earthen and glass ware, and machinery.

Great Britain's exports to Cyprus during the fiscal year 1905-6 amounted to \$726,755. Turkey came next with \$417,240 worth, then Austria, Italy, Egypt, France, Germany, Greece. Italy showed the greatest percentage of increase.

GOODS THAT CAN BE SOLD.

American exports to Cyprus amounted to about \$5,000 (machinery), while we took about \$10,000 worth of Cypriote exports, such as skins, wool, cigarettes, etc. In Cyprus there are openings for American cotton fabrics, leather, lumber, iron and steel manufactures, flour, notions, paper, canned provisions, coal, glassware, beer, copper, drugs, agricultural implements, and mechanics' tools. Commercial travelers representing American houses should stop off at Cyprus when visiting the Levant. There are frequent steamer sailings between Larnaca and Beirut.

The Cyprus government railway was officially opened for traffic (October 31, 1905, from Famagusta to Nicosia, the capital, a distance of 35 miles. It is now being extended from Nicosia to Morphou. The harbor works at Famagusta were finally completed in February, 1906. Official assurance has been given of the absolute security of the harbor and of the facility of access thereto and egress therefrom.

The sinking of an artesian well at Nicosia in 1905 was a public work generally considered of perhaps greater importance to Cyprus than any engineering undertaking since the British occupation. An American boring plant capable of drilling to a depth of 3,000 feet was procured at an expenditure of \$5,430 and was installed at Nicosia. At last accounts a depth of some 750 feet had been reached. Throughout the island there is a general deficiency of water. During the year under report the mean rainfall was 19.35 inches.

FURTHER DEVELOPMENT OF THE ISLAND.

Foreign capital, so much desired and so long needed in Cyprus, has commenced to be invested in the island by the Anglo-Egyptian Land Allotment Company, who have purchased a considerable amount of property and who have entered into an agreement with the government to establish an agricultural bank. The operations of the company are still in an elementary stage. The revenue collected in Cyprus during the year under report was \$1,191,060. The disbursements during the same year amounted to \$795,585, which, together with the tribute payment to Turkey (\$464,000 annually), raised the total expenditure to \$1,259,585. A deficit, therefore, of

\$68,525 occurred on the financial transactions of the year, to meet which a "grant in aid" of \$80,000 was voted by the British Parliament.

Under the treaty of June 4, 1878, between Great Britain and Turkey, the government of the island was to be administered by England for so long a time as Batum and Kars may be kept by Russia. Cyprus was to pay a certain tribute to Turkey. As a matter of fact this tribute is retained as part payment of the loss sustained by England and France in paying the deficiency on the guaranteed Turkish loan of 1855. During the twenty-eight years of British rule Cyprus, from her own resources, has contributed toward the obligations of the Ottoman Empire no less a sum than \$12,820,725. It is now announced that the British Parliament will vote an annual grant in aid of the revenues of Cyprus of \$250,000, and we may therefore look for a still brighter era of enterprise and internal improvement. In 1878 the population was hardly more than 100,000, as against 1,000,000 during the Venetian period (1487-1571). At present the population of Cyprus—after Sicily and Sardinia, the largest island in the Mediterranean—is more than 250,000, as against 237,053 in 1900, three-fourths being Greeks, and the rest Moslems.

HANDLING TURKISH ORDERS.

WARNING TO AMERICAN MANUFACTURERS—TRADE RETARDED.

Consul E. L. Harris, of Smyrna, calls the attention of American manufacturers to their negligence in sending merchandise to the Levant. He writes:

This territory is well worth looking after. It has no industry to speak of, therefore almost everything is imported, and if Germany can boast of being Turkey's universal provider, it is not so much on account of the cheapness of her wares, but chiefly as a result of the minute attention which her manufacturers give to every detail of a transaction from the time the order has reached them to the day when the shipment arrives at its destination. American manufacturers are, unfortunately, too bent on thinking that their duty toward their client ends on the delivery of the goods to a shipping agent in New York, whose interest in the transaction is of a somewhat mercenary order, and who is a party not easily reached, and who often shirks all responsibility. The result is that the foreign buyer from his way-off residence has to keep on the lookout for any mishap which may occur to his shipment, such as delay, exorbitant rates of freight, shortages, etc., and finally gets so disgusted that he drops the article with a prejudice against American business ways.

Many American manufacturers have shown gross neglect in carrying out their part of the contract; not the bare contract which binds a seller to deliver at his factory the quantity and quality of wares which the buyer has paid for, but the moral contract which no less binds him to see that these wares are properly packed for the intended journey; that they are delivered on board ship without loss of time and at reasonable charges; that the freight paid on them is not unnecessarily prohibitive; that they are insured for the proper value, unless the buyer himself has advised in this respect, and, finally, that the transshipment, if any, is not delayed. When all these obliga-

tions have been fulfilled by the manufacturer, he may be sure that the good seed has been sown and that the harvest is bound to come sooner or later. On the other hand, it is to the manufacturer's interest, if not duty, to carry out these obligations, for, whether they result in saving time or money, they render his products more marketable by keeping down to the lowest limit their ultimate cost.

A local importer said the other day that a shipment of desks which he had instructed the manufacturers to forward by a German steamship company via Naples—this route being to his knowledge a cheap and rapid one—were, for some unknown reason, shipped by another line via Trieste, the result being a delay of at least one month, and the necessity for the importer to write to Trieste to press the shipment. Moreover, the shipment was not insured, although the manufacturers were instructed to cover the insurance at the expense of the consignee.

EXAMPLES OF CARELESSNESS OF AMERICAN MANUFACTURERS.

Another importer related his experience with a firm manufacturing launches, for whom he had sold a large launch to the coast-guard administration at Alexandria, Egypt. He had specially recommended the manufacturers to use the greatest care in preparing and forwarding the first order, as he knew that if the buyers were pleased with their first acquisition, orders for eight more boats would be secured. In this case the manufacturers shipped the launch after a delay of more than six months, and then, when it arrived, it was found that the lifting rings which had been ordered were not fitted, which compelled the importer to put them in at his own expense. No care had been taken to have the launch ready for service, so that the trial proved altogether unsatisfactory. As a result of this negligence the coast-guard administration the following year ordered several launch engines from England, and by so doing not only deprived the American manufacturers and their agent of an otherwise sure sale, but also cast a prejudice on their product.

The same manufacturers having sold through this agent another launch to a prominent man in Smyrna, and having agreed to deliver the boat at a certain date, delivered it one month later. The agent, with great difficulty, persuaded the purchaser to accept the boat at a discount. When it came to the trial, the engine could not be made to work, and it was only after two days of labor and worry that the agent discovered that the ignition magneto and wiring had been wrongly installed and were making no spark. The importer said that this useless neglect on the part of the manufacturers caused him to lose at least three further orders.

In another instance, where a typewriter had been ordered, and which was shipped in two packages, the machine and the cover, the shipment was received without the cover, and it has been impossible since to recover from the shipping agents this cover or its value.

UNWISE PACKING CAUSES HEAVY FREIGHT CHARGES.

As another example of the carelessness of American manufacturers, a shipment of concert-hall chairs was forwarded, all set up in some 40 enormous cases, along with various pieces of drawing-room and dining-room furniture, packed in the most careless manner. The freight on these chairs amounted to nearly the value of the goods, and the other furniture arrived smashed to pieces.

American products, with but few exceptions, are highly appreciated throughout the Levant. A little judgment and fairness on the part of manufacturers, coupled with vigilance and perseverance, should in most cases secure for them a profitable trade in many articles, especially roll-top desks, chairs and tables, boots and shoes, clocks and watches, kitchen and general hardware, etc.

The three great industrial nations, England, France, and Germany, each consume about 80 per cent of the manufactured goods produced at home. Twenty per cent, therefore, is sold abroad. Germany, for example, takes the lead to-day among the nations searching for foreign markets. For forty years she has been studying the best methods of securing an outlet for that 20 per cent. It is claimed that the United States consumes 95 per cent of the manufactured goods produced within her borders. Only 5 per cent, then, is sold abroad. Yet even to us an outlet for this 5 per cent is necessary. Does any manufacturer anticipate that with factories, mines, and lands increasing in their output at the rate they are in the United States, that the quantity to be sold abroad will continue to be restricted to a 5 per cent limitation? That the surplus will increase from year to year is certain, and the only way to dispose of it is intelligently and energetically to provide an outlet in new and virgin countries.

IMPORTED MERCHANDISE.

EXCELLENT MARKET OPENING AT SMYRNA AND IN THE LEVANT.

Consul Harris also reports that in the whole of the Province of Smyrna there is not a paper factory, every piece of the huge quantities required being imported. The following trade details are furnished of the imports of stationery, as well as many other salable articles:

It is a curious circumstance that all the old rags are carefully collected and shipped to other countries, returning thence in the form of paper which can be sold at a profit despite the freight and other charges. As a general rule, the highest class of writing paper is not much imported, what little there is coming from England. The bulk of the paper trade was until recently supplied by Austria, which furnished large quantities of medium-grade paper. Within the last few months Belgian manufacturers have bid sharply and secured a large portion of this trade. Every description of paper is imported, from straw and cardboards to cigarette and fancy papers for purposes of decoration, etc., from the various countries of Europe.

THE UNITED STATES HAS ONLY A FRACTIONAL SHARE.

America's share of the \$350,000 trade carried on here annually does not amount to \$50 and there is no reason why, if an organized effort were made, American manufacturers should not contribute largely to the needs of this market in this particular line. In the writing-paper trade there are two classes to cater for, the European and the Turkish. For all documents written in Turkish, a paper having usually a high polish is used, and this is to a certain extent necessitated by the style of the writing for which a cut reed dipped

in Chinese black is used, the paper, moreover, being usually held in the left hand instead of being placed flat on a desk. The slightest irregularity on the surface of the paper causes the pen to splutter. The use of blotting paper is also practically unknown to the Turks, who use fine sand instead. The Europeans, although ahead of the Ottoman population, are still far behind in time-saving devices in the stationery line, loose-leaved ledgers, card indexes, manifolding and other similar appliances being totally unknown.

Although the import duty is only 8 per cent on practically all products, the cost of labor is so low as to permit of the manufacture of cardboard boxes being carried on at a profit. There is a good demand for all kinds of imitation art leather and other requisites for these and for bookbinding. Japan is making an effort to introduce her goods, and at present supplies an ever-increasing quantity of fancy note paper, paper lanterns, and papier-maché goods.

OTHER LINES OF GOODS.

Ink is all imported. A well-known brand of English ink holds easily the first place, America, France, and Germany supplying the remainder. In nearly all the schools a violet ink is used which is imported chiefly from Germany and has the advantage of leaving no stains if spilled on clothes or hands. Paper for cigarettes is imported from Italy in large sheets and cut here by machinery into pieces of the requisite size. The provisions of the recent stamp act which requires that all advertising matter bear an adhesive revenue stamp, is causing a considerable difference to the local printers. Previously, practically all the posters used by European firms advertising here were imported from abroad, but owing to the amount of time necessitated at the custom-house for affixing stamps to each poster, it has been found more practical and cheaper to have the posters printed here. There is, consequently, a steadily increasing demand for the special glazed paper necessary for this work.

For newspapers the paper is imported in cut sheets of the requisite sizes, chiefly from Austria. Pens, pencils, slates, erasers, and in fact everything in the way of stationer's supplies are imported, the only local products being the reeds used for Turkish writing. In all lines pertaining to stationer's supplies there is a profitable field open to American enterprise.

TRADE IN BUTTER—SALE OF OILS AND FATS.

The use of butter in connection with bread is entirely unknown to the native population of Turkey, yet immense quantities are consumed. Butter as known to Americans is chiefly imported, very little being produced locally, owing to the poor quality of the pasturage. Milan, Italy, and the district around Budapest, in Hungary, furnish this market with a certain amount of fresh butter, especially during the winter months. During the summer this trade falls off, owing to the difficulty of keeping the butter from turning rancid on account of the great heat. Salt butter is brought from Denmark and Cork, in Ireland, in tins. A poor quality of butter for cooking purposes is brought to Smyrna in the springtime from the region of Aleppo in Syria and Trebizond on the Black Sea, the former supplying most of the butter used by the imperial troops in Turkey.

Very large quantities of a so-called "butter," which is really beef

fat, are imported from Russia in large barrels weighing nearly half a ton each. It is strongly salted, has a strong flavor, and is used solely for cooking. Very little of this butter reaches the consumer in its pure state, being adulterated by the local dealers with the fat of the Karaman or fat-tailed sheep. Of late years American oleo oil is largely replacing the fat above referred to. A campaign was waged against the importation of the American oleo oil for alimentary purposes by those interested in Russian butter on the plea that it contained cotton seed and peanut oils, the importation of which is strictly prohibited. In some cases the claim was found to be correct and the goods had to be returned or shipped to those countries where less stringent regulations prevail. There are brands of oleo oil manufactured of pure beef fat, which are steadily imported after passing the customary custom-house analysis.

OPPORTUNITY FOR SALE OF SHIRTS AND ICE BOXES.

At present there are no American shirts on sale in Smyrna. Practically all the shirts come from Austria, England, and France. They retail at \$1 to \$1.25 each. A shirt which opens all the way down in front does not seem to find much favor here. Colored shirts with cuffs attached are the only ones in use for spring and summer wear. There is a good opportunity for American shirts here, and a market could more easily be secured than in many of the European cities. A reliable agent to call upon the local trade and a few samples to show the quality and color of the goods would be the only outfit necessary to start with.

There is also a splendid opportunity for the sale of American refrigerators and ice boxes. What is needed is a box which will retail at from \$15 to \$20.

PROSPECTS FOR AMERICAN FOOTWEAR—ADVICE TO EXPORTERS.

Patent-leather shoes, especially those made on American lasts, are considered indispensable to the well-dressed man in the Levant, but with this solitary exception, the long and narrow shoe, well pointed at the toe, known locally as French shape, practically holds this market. While a considerable quantity of ready-made shoes, chiefly those for ladies' wear, are imported from France and Austria, the bulk of the trade is supplied by local shoemakers, who work extremely cheap and well. With the exception of part of the sewing being done by machine, the whole is made by hand. The better class of the Turkish population wear a shoe made of very thin leather, having a closely fitting overshoe of slightly thicker leather, which is worn when out of doors. In all native houses the floors are either covered with matting or thick Turkish carpets, either of which show the least trace of mud or dust on them, making it imperative that great care should be taken to keep clean boots, hence the large number of bootblacks found in every Levantine city. Shoes made on the American pattern do not, as a rule, find favor, and although they may become so at some later date, American shoe manufacturers must, if they intend to sell through catalogues, make shoes on the French pattern. If the American patterns are to be introduced it would be a good plan to open stores in the chief cities of the Levant where nothing but American shoes would be sold.

GERMANY'S TRADE IN RUBBER OVERSHOES.

Germany at present has the largest trade in rubber overshoes with this province, and her annual exports amount to about 1,000 cases, each containing 100 pairs. America's share approximates 700 cases, which contain either 2 or 4 dozen pairs each. The imports from Russia, which now are perhaps not more than 200 cases per annum, have dwindled very considerably from what they were three years ago, owing to the disturbed state of her manufacturing districts. While the American overshoe is preferred by the better classes on account of its lightness and shape, it has the defect of not being nearly as durable as the German article, and is moreover 15 per cent higher in price. The German manufacturers grant three to six months' credit, while the American exporter demands cash, a stipulation not much appreciated by the Levantine merchants. The bulk of the worn-out rubbers are shipped to the United States for the sake of the rubber. The quantity last year was valued at \$817. Repairs to overshoes are done very skillfully by local experts, who will repair a shoe which seemingly is of no use.

Boot polishes are all imported, chiefly from Austria and Germany, and are of very low quality. These are the creams used almost exclusively by the bootblacks, only a very small quantity of high-grade polish being imported. This is mostly brought from America and is used by local shoemakers in order to obtain a good polish on their goods when finished.

GOOD FIELD FOR SALE OF FURNITURE.

For a long time various lines of American furniture have enjoyed an excellent reputation in this city. American chairs and rockers were first imported several years before the civil war on American sailing vessels then plying between Boston and the Levant. This importation stopped soon after the close of the war and the disappearance of the American flag from these waters. It was again taken up some eight years ago by an enterprising importer who, while appreciating the opportunities in this country for these wares, had to abandon the line owing to high rates of freight and the lack of support from manufacturers. There is a good field in Asia Minor for the sale of American furniture, provided manufacturers would make an effort to secure it by slightly modifying their styles to suit the local demand, and by so designing the articles to permit knocked-down shipments.

The greater part of the chair trade is supplied by Austria-Hungary in the shape of the bent-wood article. This style of chairs, while pleasing in design, is of somewhat flimsy construction and is not considered very durable. It has an excellent finish, being rubbed and polished, and the cane seat is of good quality. They retail at from \$12 to \$22 a dozen. Chairs of a more expensive order, upholstered in leather or cloth, are usually made here or imported from England. The general styles of American chairs are quite suited to the local demand, but the wood finish should be good, whether gloss or rubbed and polished.

DINING ROOM AND OFFICE FURNITURE.

Dining-room furniture, such as sideboards, extension tables, buffets, etc., are also chiefly made here, a certain amount of better-class

articles being imported from English makers. They are usually made of hard wood of the darker kinds, such as mahogany, walnut, or rosewood, but lighter colored hard woods are gradually coming into favor. Sideboards are larger in size and of richer finish than similar furniture in America. They have marble tops and beveled plate mirror backs, with plenty of carving on the panels and mirror frames. American sideboards would have to conform to this style in order to sell well. Extension tables are very much the same here as in America, with the exception that they are somewhat heavier and fitted with a screw for opening and closing. The remainder of the articles entering into the furnishing of dining and drawing room are also manufactured here from European designs. They differ to a certain degree from American designs, but the difference is not so marked as to be prohibitive. Perhaps a good way to export such furniture would be to sell the goods in the white—that is, not polished or upholstered—and knocked down—taken apart, so as to box in as small volume as possible.

Office furniture offers, after chairs, the best opportunities here, roll-top desks and cabinet files especially. Offices are now fitted up in proper modern style, and a demand has started for up-to-date and time-saving appliances. The greater part of roll-top desks imported here come from England. They are generally of American origin.

Most of the furniture is made locally, but is of a very unsatisfactory kind, owing to the wood used not being sufficiently seasoned. On the other hand, as no woodworking machinery is made use of, the product lacks uniformity and the fitting of parts is very poor.

Reliable information gathered in this city from several sources shows that it would pay American manufacturers to make an effort to secure a part of the furniture trade in this section. This office will gladly answer inquiries on the subject and furnish any additional information which may be required in the shape of photographs or detailed descriptions of special articles.

HEATING APPARATUS.

The climate of Asia Minor enjoys somewhat undeservedly the reputation of being more or less tropical. As a matter of fact, the cold during the months of December, January, and February reaches an average point where heating is a necessity. The thermometer seldom goes down below 25° F., but the air throughout the winter season is so moist that the sensation of cold is very penetrating and calls for artificial warmth. Up until about ten years ago the only contrivance in general use for heating was the "mangal," a sort of copper or brass pan set in a stand of the same metal, of more or less artistic shape, in which was placed well-ignited charcoal. This appliance, which corresponds to the Mexican "braseo," found the end of its usefulness with the advent of American petroleum heaters, which started ten years ago and which literally carried the country by storm. Their cheapness and portability appealed to the public at once, and within the last ten years over 5,000 petroleum heaters have been sold in this region, 80 per cent being of American manufacture. Of late years, owing to the higher cost of Russian petroleum, the sale of these stoves has fallen off, although still keeping the lead among the other heating appliances.

The sale of coal stoves is also rapidly increasing, all well-to-do

houses now being fitted up with them. Cast-iron stoves are imported chiefly from Germany and Belgium. Germany and Austria supply the cheaper grade of porcelain stoves, while France provides the better quality. The latter kind burn wood and give forth a very gentle and even heat. Cast-iron stoves burn either wood or soft coal. Base-burners are practically unknown here, owing to the scarcity and high cost of hard coal and anthracite. Gas stoves are also getting popular, but the high gas rates—\$1.50 per 1,000 cubic feet—restrict their use to the wealthier classes. These gas stoves are imported chiefly from England and are of very plain style.

There is an opportunity for the sale of improved steam or hot-water heaters, especially in the large office buildings and in the modern houses gradually being erected, and it will prove a paying experiment for some enterprising American manufacturer to make an effort toward the introduction of his wares. For this it is necessary to select a good local agent, who should combine with reliability and activity the technical knowledge which would enable him to talk up the article and avoid a defective installation, which might prove disastrous to the ultimate success of the business.

INDIA.

PROGRESS OF THE COUNTRY.

NEW JETTIES AT CALCUTTA—ALUMINUM, ETC.

According to a report furnished by Consul-General W. H. Michael, of Calcutta, a new jetty, with a floor capacity of 148,558 square feet, has been completed and several more are to be built, in order to relieve the congested condition of that important Indian port. Mr. Michael continues:

It is proposed to make a radical change in the method of handling jute. For years jute has been hauled from private godowns to the dock for loading aboard vessels. Sometimes it happens that more jute is hauled to the dock than the vessel can take, which necessitates either letting it lie at the dock until another vessel can take it or hauling it back to the godown, which adds unnecessary expense. Now work is underway on new jetties where vessels can load direct from the shed, thus doing away with the bullock cart altogether in hauling to the vessel. This will be a great convenience and effect a great saving to shippers. The same plan is proposed for handling tea, hides and skins, and shellac.

The following extract from a Calcutta paper assigns the cause for the high prices of raw jute:

The very high price to which the finest quality of jute went this season was largely due to the enormous demand for Rio yarns from Dundee, to be woven into bags to transport a record crop of coffee from Brazil. The export of coffee from Brazil for the present season up to January 31 was 13,883,000 bags, against 8,233,000 bags last season and 8,335,000 bags in 1904-5 to same date. The total for season 1905-6 was 10,227,000 bags, against 9,973,000 bags in 1904-5. If we take the same proportion for the remainder of the present season it will give a total of about 17,000,000 bags. This is a record crop, but it looks, from the large quantity of yarns still being bought in Dundee, that another large crop is anticipated. If this be the case, we may expect a repetition of the demand for the fine quality of the fiber at a fine price.

The manufacture of aluminum articles has been successfully inaugurated in India. It was begun under government patronage, but is now being carried on by individual enterprise. The factory at Madras is turning out a large number of aluminum milk pails, water bottles, kettles, saucepans, cigar and cigarette cases, razor strops, etc. The native artisan takes readily to the new industry, and the people seem to like the new metal quite as well as copper, yellow metal, and tin, to which they have been accustomed for centuries. But for the high prices asked for aluminum ware it would soon supplant to a considerable degree utensils made of copper and copper and tin alloy. The metal is imported from England in the form of disks and sheets ready for working. The imports for the fiscal year 1906 amounted to 180,880 pounds, valued at \$60,195, against 99,680 pounds, worth \$35,080 in 1905.

ALUMINUM AND MANGANESE.

The production of aluminum from clay has not yet been attempted in India for commercial purposes, but laboratory experiments have shown that bauxite or aluminum ore exists in large quantities in the central provinces, and awaits the coming of some enterprising person, with modern machinery for manipulating it, to establish a new and valuable industry for India.

The Portuguese port of Mormugoa, usually called Goa, situated on the west coast of India, south of Bombay 200 miles, is having a revival, due to the large amount of manganese ore being taken out of the newly opened mines in Mysore State, most of which is being shipped from that port. Over 40,000 tons of manganese ore were shipped last year, and the prospects are that double that amount will be shipped during the present year. There have been two hundred and fifty concessions for mining this ore within a few months. At the present time there are more than twenty mines being worked and others are being opened. These manganese deposits are said to be very rich and of fine quality, and being situated near the coast line makes transportation comparatively cheap and easy. The Portuguese authorities are doing all they can to facilitate the opening of the mines by maintaining the most practical terms with respect to concessions offered to the public.

JAVA SUPPLYING INDIA WITH SUGAR.

There was a partial failure last year of the sugar-cane crop in India, and as a result Java has taken advantage of the shortage by rushing her cane-sugar products into the Indian market. Imports of this commodity from Java nearly equal the total imports of beet sugar from Europe. The effect has been to reduce the price of sugar very considerably. The revival of the Indian crop, which is likely to occur this year, will stop the imports to some extent of cane sugar from Java and beet sugar from Europe.

COTTON SPINNING AND WEAVING—CIGARETTE MANUFACTURE.

During the nine months ended December 31, 1906, the Indian spinning and weaving mills produced 500,199,461 pounds of spun yarn, and 548,288,705 yards of woven goods, as against 512,852,861 pounds and 437,845,906 yards, respectively, for the corresponding period of 1905.

The British American Tobacco Company, which has been manufacturing cigarettes on a small scale at Karachi, has purchased 35 acres of land near Monghyr, on the East Indian Railway, about 298 miles northeast of Calcutta, for the purpose of establishing a cigarette factory with modern machinery, which has been purchased and is expected soon to arrive. The land and improvements thereon cost the company about \$10,000, and much more will be expended on the plant. Expert cigarette makers are on their way to India, and it is the purpose of the company to make first grade cigarettes and to supply the demand in India for all grades of the article.

FOREIGN TRADE OF CALCUTTA IN JANUARY.

The foreign trade of Calcutta—imports and exports by sea—for the month of January, 1907, as compared with the same month in 1906, showed imports of \$15,555,600, an increase of \$2,208,300, and exports of \$24,444,400, an increase of \$2,200,000. The increase or decrease in the chief articles was as follows:

Imports.—Cotton piece goods declined from \$8,250,000 in 1906 to \$5,500,000 in 1907. Increases were—railway materials, \$633,300; metals, \$333,300, and sugar, \$200,000. The imports of beet sugar from Europe were less by 16,852,640 pounds in 1907 than in 1906.

Exports.—Jute increased \$333,300; hemp increased 3,956,848 pounds, the export being stimulated by the high price of jute; indigo increased \$141,700, while grain fell off \$833,300, and tea \$200,000, on account of the falling off in the supply; hides and skins were 533,300 less and coal 10,000 tons less. There was also a falling off in the exports of seeds, opium, raw cotton, cotton twist, and lac.

NEEDED AIDS TO TRADE.

The only way, it seems to me, for American manufacturers to get into India and regain, at least in part, the position they held in the days of sailing ships will be by learning exactly the kind of goods that are used in India, and then to offer them for sale on the spot at prices lower than are being paid for English made goods. To accomplish this a regular line of fast ships between the United States and India should be established. This line must be direct, quick, and certain. Of course this can not be brought about until the American manufacturers are thoroughly aroused. In the meantime it will require hard work against overwhelming odds to increase American imports, which only amount to 2.2 per cent of the \$360,000,585 worth of goods which are sold annually in India.

CHINA.

TRADE OF NINGPO.

AN IMPORTANT CONTRIBUTING CENTER FOR SHANGHAI TRADE.

Consul-General James L. Rodgers recently went to the city of Ningpo, 135 miles south of Shanghai, to observe trade conditions and to make the acquaintance of the Americans resident in that Chinese city, and as a result makes the following report:

The city of Ningpo, which in former years was of great commercial importance and which has contributed to Shanghai the majority of the successful Chinese merchants now resident here, is at the present

time merely a port of shipment for native produce to Shanghai, from whence it is reshipped to all parts of the world. The principal importations at present are the articles used in their domestic economy, such as cotton piece goods, kerosene oil, and food, and the materials entering into their manufactured products, these being largely palm leaves and metals. Of the exports, the so-called straw braid, meaning hats and material for hats, both of rush and wood-shaving character, is the most prominent, the exportation having been 5,485,415 pieces in 1906. After this hat material came rush mats, for which the town is famous, the amount being 2,187,788 pieces. Ningpo fans to the number of 1,509,493, and medicines to the value of 391,855 haikwan taels (haikwan tael on April 1 worth 83.4 cents) completed the bulk of the exportation, although considerable quantities of raw cotton, 104,589 piculs of 133½ pounds each, and of white alum, 92,352 piculs, may be taken into account. The trade of 1906 showed a substantial increase over that of 1905, but the figures are not yet available.

OCCUPATION OF PEOPLE—NATURAL MERCHANTS.

The population of Ningpo, which is approximately 260,000—a much smaller number than the period of a half century ago—is largely devoted to agricultural pursuits, although a great many people are engaged wholly in fishing in the shallow waters which receive the floods of the great Yangtze, and therefore teems with fish life. This pursuit, which includes the annual harvest of the cuttlefish from the bays of the neighboring islands, and the storing of the thin ice of the winter for use in the shipment of the spring and summer catch, means the absolute livelihood of many thousands, and enables the maintenance of a fleet of fishing junks and sampans larger, perhaps, than that of any Chinese port except those of the great cities. Of all the cities of China the people of Ningpo are in many ways the most interesting. They are canny, intelligent, frugal, and resourceful; they make the best merchants; they are good sailors, and the Ningpo servant, in the experience of the foreigner in China, is the most satisfactory. Shanghai has practically absorbed the business of the port as far as the world is concerned, but Ningpo men are the ones who have the largest part in the benefit accruing from that condition.

The cities of Ningpo, Hangchow, and Soochow, all of which are directly tributary to Shanghai, give in a large measure the inland impetus to the remarkable trade of this great and growing city.

MANCHURIAN DEVELOPMENT.

RAIL AND ROAD WAYS AND RIVER STEAMERS ARE PROPOSED.

Consul-General W. D. Straight, of Mukden, writes that the commissioner of customs at Mukden, in a recent report to the Viceroy, calls His Excellency's attention to the fact that in their freight tariff the Japanese railway authorities discriminate against the Chinese port of Newchwang in favor of Dalny. In order to create healthy competition in the carrying trade the commissioner recommends the following:

(1) The imperial railways of north China be extended from Hsinmintun to Fakumen, a distance of 160 li (53 miles), and later con-

tinued north to Tsitsihar, the capital of Heilungchiang province, thus affording winter transport to Chingwantao or some other ice-free Chinese port to be hereafter established for the grain produced in the west Liao region. It will otherwise be necessary to store this produce in Fakumen, Tungchiangtzu, or Hsinmintun for shipment to Newchwang when the river opens in the spring, or to haul the grain to Tieling or some other point on the railway, whence it would probably be exported through Dalny.

(2) The Liao River be conserved and that a company be organized to operate light-draft river steamers.

(3) The repair of the cart roads between Fakumen and San Mien Chuan (on the Liao), Tieling and Mafangkou, and Changtu and Tungchiangtzu. Post-roads such as have been constructed in Chihli province are suggested as models, there being no necessity for attempting elaborate road building in this region.

The viceroy has referred the recommendations to the various departments of the provincial administration and requested them to report on the means by which they may best be carried into effect. An official has already been dispatched to Japan to study river conservancy.

JAPANESE NATIONALITY.

HOW ACQUIRED BY CERTAIN CHINESE SUBJECTS.

On pages 94 and 95 of the Monthly Consular and Trade Reports for January, 1907, appears an extract from a report of Mr. Harry L. Paddock, United States consul at Amoy, in which the following passage occurs in reference to the alleged acquisition of Japanese nationality by Chinese subjects in China:

Japanese firms are gaining a foothold in the treaty ports, and the number of the Chinese that are becoming Japanese subjects is surprising. It might be well to mention that the Japanese consul here has power to confer Japanese citizenship upon Chinese subjects.

In relation to the foregoing there has been received the annexed explanation from an authoritative Japanese source:

The statement that the Japanese consul in Amoy has power to confer Japanese nationality upon Chinese subjects is undoubtedly based upon some error. Amoy is situated on the Chinese coast of the Formosa Channel, and among the Japanese merchants and sojourners in that port are to be found a number of Japanese subjects who owed allegiance to China prior to the cession of Formosa from China to Japan. The first paragraph of article 5 of the treaty of Shimonoseki, under which Formosa was ceded to Japan, provides:

The inhabitants of the territories ceded to Japan who wish to take up their residence outside the ceded districts shall be at liberty to sell their real property and retire. For this purpose a period of two years from the date of the exchange of the ratifications of the present act shall be granted. At the expiration of that period those of the inhabitants who shall not have left such territories shall, at the option of Japan, be deemed to be Japanese subjects.

Under this clause a number of Chinese subjects in Formosa acquired Japanese nationality. In Amoy, therefore, to-day a number of men and women are to be met with who to all appearances are Chinese, but who have lost the political status of Chinese subjects and acquired Japanese nationality. In the political and juridical sense such per-

sons are Japanese subjects, and they will no doubt be claimed to be such by the Japanese consular officers in China. It is probably due to this circumstance that an erroneous impression has been conveyed to the United States consul at Amoy. The truth is, not that the Chinese subjects acquire Japanese nationality by the action of the Japanese consul, but that the consul is bound to recognize as Japanese subjects such Chinese as have acquired Japanese nationality under the laws of the Empire. Aside from the acquisition of Japanese nationality resulting from the cession of Formosa, the only way in which Chinese or any other alien may acquire the status of Japanese subjects is limited to naturalization and the special cases usually recognized by the European and American jurisprudence—such, for instance, as marriage, acknowledgment of minors by parents, etc.

In case of naturalization the permission of the Minister of State for Home Affairs is necessary, and such permission can not be granted unless the alien who desires to be naturalized has had his domicile in Japan for at least five consecutive years. It is also necessary that such alien should either have no nationality or lose his original nationality under the laws of his country upon the acquisition of Japanese nationality. Moreover, there are some other conditions the existence of which is necessary for naturalization, but it would be unnecessary to enter into details. Suffice it to say, that in no case can a Japanese consul confer on an alien the status of a Japanese subject. Nor is an alien domiciled abroad permitted to acquire Japanese nationality. (See Article 7 of the Law of Japan Concerning Nationality, promulgated March 15, 1899.)

ARCHITECTS IN HONGKONG.

Consul-General A. P. Wilder forwards a list containing the names of all the architects authorized to practice that profession in the colony of Hongkong, China. This should possess especial value to American manufacturers of products that are used in building, because many of these gentlemen not only specify specialties to be used in work under them, but make the purchases themselves, charging the owner of the building a percentage on the cost. [The list is on file at the Bureau of Manufactures.]

JAPAN.

MATCH COMBINE.

ANOTHER EFFORT TO ORGANIZE A NATIONAL COMPANY.

Consul-General H. B. Miller, of Yokohama, forwards the following particulars, published in a Japanese newspaper, concerning the latest attempt to consolidate the match-making industry in Japan:

A bill for the incorporation of the match industry is now before the House of Representatives with the stated object of protecting the industry in Japan, and the extension of the market abroad. The total value of matches exported per annum is estimated at \$5,000,000, and it is proposed to set aside 20 per cent of this sum and buy up the stock in trade and trade-marks of the existing match factories.

The number of companies and private firms engaged in the manufacture of matches in Japan is 209, of which 60 manufacture matches for export, and 149 make matches for home consumption. They employ about 130,000 operatives and other employees, and the wood used for the sticks annually amounts to about 150,000,000 cubic feet, equal, according to a Japanese statistician, to 3,200,000 ordinary telegraph poles. The other raw materials imported are valued at \$1,500,000. The annual value of matches exported is \$5,250,000, and those supplied for home consumption \$1,250,000. The principal field for the export of matches is China, which buys to the value of \$2,825,000; next comes Hongkong, taking \$1,300,000; Singapore \$502,000; India, \$370,000, and Korea, \$175,000.

PORT OF KOBE.

EXTENT OF THE AMERICAN IMPORTS.

Concerning the particular lines of American goods for which there is the greatest demand in Japan, Consul Hunter Sharp gives the following list of the leading products imported into Kobe from the United States during the first half of 1906:

Raw cotton.....	\$5, 223, 303	Machinery—Continued.	
Kerosene oil	763, 086	Paper making.....	\$10, 833
Wheat flour.....	715, 701	Sewing machines.....	24, 054
Paper and stationery.....	230, 181	Drilling and boring..	20, 617
Wheat	235, 604	Turning lathes.....	46, 618
Nails	201, 632	Electric motors.....	116, 599
Paraffin wax.....	138, 109	Steam engines and	
Lead	116, 622	boilers	170, 179
Lubricating oil.....	109, 266	Iron plates and sheets....	67, 004
Leather	107, 801	Bicycles	53, 820
Machinery:		Phosphates	74, 210
Locomotives	22, 945	Nitrate of soda.....	8, 107
Printing	26, 787	Barley	14, 588
Mining	10, 802		

[A list of the principal importers at Kobe accompanied Consul Sharp's report and can be had by exporters at the Bureau of Manufactures.]

FORESTS IN KWANTUNG.

According to the Japanese papers, the Kwantung administration has decided to carry on afforestation on a large scale from the present fiscal year. It has already selected an area of 150 cho (1 cho equals about 2½ acres), near Nanchan, an area of the same extent near Kinchow, about 80 cho in the vicinity of the new city of Port Arthur, and about 60 cho near Tairen. The administration is also carrying out investigations in the most fertile parts of the district with a view to allotting land to Japanese peasant settlers.

OCEANIA.

COMMONWEALTH OF AUSTRALIA.

RESOURCES AND DEVELOPMENT OF QUEENSLAND.

NEED OF IMMIGRANTS—COMMERCIAL AND INDUSTRIAL CONDITIONS.

Special Agent Harry R. Burrill furnishes the following report on trade conditions in Queensland:

The State of Queensland occupies the northeastern part of the continent of Australia and comprises a territory of 668,497 square miles. This vast area, extending as it does for 1,300 miles from north to south, and 900 miles from east to west, includes great varieties of soil and climate, which naturally give origin to products of both the Temperate and Torrid zones. The physical features of southern Queensland are quite similar to those of New South Wales, its neighbor on the south. Near the coast line may be found short rivers, the centers of fertile valleys, separated by ranges more or less elevated, but rarely of sufficient height to aspire to the dignity of mountains.

The more important rivers find their source in the Great Dividing Range, a mountain chain extending practically the entire length of the State. The extensive territory west of this range was for many years regarded as unsuitable for agricultural purposes, but this theory has been exploded and a gratifying development has taken place. Southern and central Queensland suffer from an irregular and generally inadequate supply of surface water, but in this respect they differ but little from the larger part of the great island continent, and here as elsewhere a comprehensive system of irrigation seems indispensable. Northern Queensland is more highly favored, both in the quality of its soil and the regularity of its rainfall, but the climatic conditions of that territory are not such as to induce permanent white settlement.

PRODUCTS AND COMMERCE.

The population of Queensland has grown altogether too slowly for the proper development of the fine natural resources of the State, for there are now within its borders only 600,000 persons, in round numbers. This may in part be accounted for by the stringent immigration laws, rigidly enforced, which conform to the demand universally found throughout the Commonwealth for a "White Australia," or "Australia for the Australians." Queenslanders still adhere strictly to this principle, but it is evident that they are beginning to realize the necessity of more Australians for Australia, to paraphrase the popular political cry, for they are making energetic and apparently successful efforts to secure desirable settlers. Government assistance is freely extended to deserving immigrants, both before and after their arrival, but this policy is in no way intended as an encourage-

ment to paupers or other undesirable aliens. Like New South Wales, but to a somewhat lesser extent, the government of Queensland is advertising the resources of the State and in this way directing attention to its advantages as a home for the permanent settler.

A study of the products and commerce of Queensland, even under the somewhat discouraging conditions now existing, indicates the splendid possibilities opening up under a largely increased population and intelligently directed effort toward securing an adequate water supply. The latest official figures available are for the year 1905, but the government authorities estimate from returns already in hand that the figures for 1906 will, as a rule, show a substantial increase. Bearing this in mind, a fairly accurate idea of the trade of Queensland can be formed through an examination of the published commercial statistics for the five years preceding 1906, showing, in classified order, the value of the annual imports and exports.

IMPORTS AND EXPORTS.

For the calendar year 1905 (figures for 1906 not available) the value of merchandise imported was \$30,274,292. In addition the bullion and specie imported aggregated \$2,328,070. The principal articles imported are given in the following table:

Article.	Value.	Article.	Value.
Arms, ammunition, etc.....	\$494,554	Leather, and manufactures of:	
Bags, sacks, cordage, and twine.....	786,943	Boots and shoes.....	\$841,856
Chemicals, drugs, etc.....	1,014,300	All other.....	328,754
Flour and other breadstuffs.....	1,589,725	Machinery, hardware, etc.....	4,576,019
Fruit (green), seeds, vegetables, etc.....	705,682	Oil, all kinds.....	555,586
Furniture, etc.....	679,768	Paper, books, stationery, etc.....	912,440
Groceries, provisions, etc.....	2,805,518	Piece goods.....	4,086,619
Haberdashery.....	2,639,307	Spirits, wine, and beer.....	1,218,958
Jewelry, clocks, watches, etc.....	325,757	Tobacco, cigars, and snuff.....	699,974
Live stock.....	1,668,806		

The value of the exports, exclusive of gold in dust and bars, was \$45,977,910. Gold was exported to the value of \$12,106,135.

MERCHANDISE FROM THE UNITED STATES.

For 1905, according to figures supplied by the Government statistician, the principal imports from the United States and their approximate value in American money were as follows:

Apparel and attire.....	\$17,000	Glassware.....	\$18,000
Cotton socks and stockings.....	1,500	Flour.....	3,000
Revolvers, rifles, shotguns, etc.....	17,500	Breakfast foods.....	15,000
Blacking, including dressing.....	20,000	Hops.....	7,500
Books, music, etc.....	10,000	Agricultural implements and machinery.....	100,000
Boots and shoes.....	40,000	India-rubber hose, etc.....	7,500
Clocks and parts thereof.....	7,500	Musical instruments.....	7,500
Cordage of all kinds.....	5,000	Organs.....	3,500
Cutlery.....	4,000	Pianos.....	10,000
Drugs.....	5,000	Phonographs, cameras, etc.....	15,000
Dyes.....	2,500	Surgical instruments.....	9,000
Electrical materials.....	4,000	Iron and steel.....	6,000
Fancy goods.....	7,500	Jewelry and imitations thereof.....	15,000
Fish, tinned.....	75,000	Lamps and lampware.....	15,000
Raisins.....	5,000	Leather and manufactures of.....	40,000
Fruits, fresh.....	15,000		
Furniture, except metal.....	30,000		

Cash registers	\$1, 500	Oil, lubricating	\$70, 000
Cream separators, etc.	4, 000	Oil, benzine, gasoline, etc.	12, 500
Gas and oil engines	8, 000	Paints, etc.	20, 000
Portable and traction engines ..	8, 000	Paper, bags, printing, etc.	25, 000
Electrical machinery and ap- pliances	25, 000	Perfumery	6, 000
Machines and machinery	125, 000	Piece goods, cotton and linen ..	60, 000
Mining machinery	30, 000	Resin	20, 000
Printing machines and presses ..	7, 000	Sausage casings	12, 000
Sewing machines	65, 000	Soap	25, 000
Typewriters	20, 000	Stationery	12, 500
Machine tools	50, 000	Timber, dressed, undressed, doors, etc.	6, 000
Potted meats	7, 500	Tobacco, manufactured	120, 000
Medicines	40, 000	Cigarettes	55, 000
Metal manufactures	90, 000	Tools of trade	100, 000
Plated ware and cutlery	6, 000	Turpentine	22, 500
Wire, iron and steel	30, 000	Bicycles and parts of	7, 000
Wire, barbed	65, 000	Other vehicles	32, 000
Wire, n. e. l.	20, 000	Motors	4, 000
Milk and cream, preserved	6, 500	Watches and parts of	15, 000
Oil, kerosene	300, 000	Wood, manufactures of	45, 000

While this is a fairly satisfactory showing compared with the importations from other foreign countries, as against Great Britain it is of comparative insignificance. England's domination of the trade of Queensland is, however, no more pronounced than in other parts of the Commonwealth, and to increase American representation on this market remedies similar to those previously pointed out should be applied. Suffice it to say that there is no prejudice against the American-made goods, although it is safe to assume that if the quality and price were practically the same a Queensland dealer would give preference to England unless such preference should run counter to the demands of the trade.

MACHINERY AND HARDWARE—BOOTS AND SHOES.

Certain machinery, hardware, and tools of American make are so firmly established on the markets of Queensland that it evidently only requires that their standard be maintained to prevent competing lines from obtaining a satisfactory foothold. In this connection American manufacturers may be interested to know that while practically all agricultural implements exported from the United States have attained a wide popularity in this State, an alteration might be made in the style of plows. The soil for farming purposes requires better breaking up than in other parts of the Commonwealth. In the judgment of those interested in agriculture, far better results could be obtained from plows that will pulverize the ground, relatively speaking, and the Queensland Department of Agriculture is trying to get into communication with American manufacturers who make an implement that will do that kind of work.

American boots and shoes, in spite of a 30 per cent duty, find a ready sale in this State and are second only to the United Kingdom in the value of importations. Boots and shoes manufactured in the Commonwealth have, however, a commanding lead due, it is explained, to the small cost to the consumer. The piece-goods market is controlled by England for practically the same reasons that account for its domination of the various markets of Australia in this line. It must be remembered, in endeavoring to obtain a permanent foothold

here, that the climate for the year round is tropical and requires light weights in all kinds of textiles.

The low-price, low-grade pianos of Germany control the Queensland market. In 1905 the value of these instruments imported was approximately \$125,000. The figures for 1906, according to the customs authorities, will show a considerable increase. Probably \$15,000 will cover the value of the American pianos imported into Queensland in 1906. The importers and dealers of Brisbane and other cities of this State ascribe the preference for German pianos almost entirely to the greater cost of the American makes. The market is an attractive one, and it would be well for the piano manufacturers of the United States who are interested in export trade to make a careful investigation of its possibilities.

MINING INDUSTRY.

Mining is one of the great industries of Queensland and all indications point to continued prosperity in this direction. The value of mineral production for 1905 was approximately \$18,500,000, the highest in the history of the State. The advance was not due to an improvement in the gold yield, but to the increased output of the industrial metals. The value of minerals other than gold produced in 1905 was \$6,000,000, in round numbers, or practically one-third of the entire mineral output. These figures are the latest available, but competent authorities estimate an increased production for 1906.

The high price of tin has caused more than ordinary activity in tin-producing centers, and the prospects for copper mining are regarded as especially good. Mining for other minerals also resulted satisfactorily. The following figures, showing the value of minerals raised in 1905, and expressed in round numbers, were obtained from the Queensland Department of Mines:

Description.	Value.	Description.	Value.
Gold	\$12,500,000	Wolfram	\$500,000
Copper	2,500,000	Manganese	25,000
Silver	350,000	Lead	170,000
Antimony	875,000	Molybdenite	50,000
Coal	750,000	Limestone	15,000
Tin	1,500,000	Ironstone	15,000
Opal and other gems	40,000		
Bismuth	15,000	Total	19,305,000

In 1905 there were 10,641 miners employed in gold mining and approximately 7,000 men employed in other mining operations. American and English mining machinery is used, and Oregon pine is imported for timbering the mines.

Brisbane, the capital and principal port of Queensland, is a thriving city of approximately 40,000 inhabitants, and possesses a harbor of sufficient depth of water to accommodate all but the big ocean-going liners. It is the seat of a government which is somewhat inclined toward paternalism, and the State now controls its railways, telegraphs, telephones, and other important industries. Independently of the Commonwealth, Queensland has commercial agents in the field, one of whom is permanently located in the Far East. The government speaks highly of their efforts to encourage trade and points to the results achieved as ample justification for a continued and an ultimate increase of the appropriation for the work.

The following table, giving railway statistics for the last five years, shows a large but decreasing annual loss. The figures for 1906 are not available, but according to the authorities there will be a further decrease in deficiency column. (£=\$4.86.)

Year.	Miles.	Net profit.	Interest on loan.	Deficiency.
1901	2,801	£223,853	£813,777	£589,924
1902	2,828	373,594	845,269	471,675
1903	2,997	423,537	865,837	442,250
1904	3,092	563,770	873,178	309,408
1905	3,114	631,908	877,931	246,028

Queensland shipping (figures, 1901–1905, the latest published) shows a slight increase in the number of vessels cleared and the tonnage, while the number of vessels entered in 1905 was the same as in 1902.

Year.	Entered.	Tonnage.	Cleared.	Tonnage.
1901	684	853,515	675	832,305
1902	780	1,035,492	769	1,032,119
1903	727	902,670	726	895,785
1904	766	949,601	761	967,792
1905	780	1,067,741	880	1,062,566

Queensland has experienced several “good seasons,” and in consequence money is plentiful, business is thriving, and contentment is found among all classes and conditions. Continued drought in this State, as is the case everywhere in the Commonwealth, means inevitable ruin; but it is astounding how quickly recovery can be made when moisture is again distributed over her vast areas. With an irrigation system sufficient for her needs and desirable immigration, the prosperity of Queensland should be second to no State of the island continent.

NEWCASTLE HARBOR.

IMPROVEMENTS IN PROGRESS AT AN AUSTRALIAN PORT.

Consul F. W. Goding calls attention as follows to the harbor improvements being carried out at the Australian port of Newcastle:

In addition to the work being done in the basin, dredges are at work in the upper and lower harbors, along the King's wharf, where a depth of 25 feet will be made, and on the bar. The breakwaters are being pushed out, the southern one to be 4,626 feet and the northern one 3,000 feet long. The splendid work that has been done by the lifeboat crew make the life-saving department one of the most interesting in connection with the port. The port charges are as follows: Pilotage, vessels in ballast, 2 cents per ton; with cargo, 4 cents per ton; minimum cargo, \$2.43; harbor and light, 8 cents per ton; wharfage, inward vessels, two days for each 100 tons of cargo free; then one-half cent per ton per diem for full cargoes; part cargoes, 1 cent; outward vessels upward of 240 tons, 1 cent per ton, half rate after twenty-five days. Steamers must pay on gross tonnage. For towage, 16 cents per ton register in and out of port; removals in the harbor, sailing vessels, \$12.16 per ton; steamers, up to \$46.66; double charges for two tugs. To Sydney, 20 cents per registered ton; 20 per cent discount for steamers.

AFRICA.

BRITISH SOUTH AFRICA.

GOODS ENTERED AT CUSTOMS UNION PORTS.

IMPORTS OF CAPE COLONY, ORANGE RIVER COLONY, NATAL, AND TRANSVAAL.

In publishing the following tables, showing the imports into the foregoing colonies, including imports from other States in the Union, for the calendar year 1906, the Board of Trade Journal (London) says they were compiled from a comparative statement recently issued from the South African customs statistical bureau (£=\$4.86).

Principal articles.	Cape Colony.	Orange River Colony.	Natal.	Transvaal.
Alcoholic beverages.....	£264,000	£103,000	£262,000	£366,000
Animals, living.....	374,000	307,000	197,000	958,000
Apparel and shaps.....	1,235,000	181,000	415,000	829,000
Blasting compounds.....	151,000	23,000	51,000	549,000
Candles.....	77,000	18,000	56,000	173,000
Cement.....	97,000	9,000	21,000	31,000
Coal and coke.....	205,000	42,000		39,000
Corn and grain.....	1,503,000	245,000	622,000	185,000
Cotton manufactures.....	1,334,000	178,000	179,000	515,000
Drugs, chemicals, and apothecary ware.....	210,000	39,000	153,000	471,000
Food and drink (except alcoholic beverages and corn and grain).....	3,120,000	485,000	1,792,000	2,904,000
Furniture.....	380,000	81,000	165,000	290,000
Haberdashery and millinery.....	884,000	231,000	689,000	601,000
Hardware.....	621,000	124,000	339,000	529,000
Iron and steel manufactures.....	487,000	123,000	177,000	417,000
Jewelry and plated ware, clocks and watches.....	177,000	81,000	103,000	215,000
Leather and leather manufactures.....	1,019,000	180,000	354,000	484,000
Machinery.....	831,000	120,000	704,000	1,492,000
Oils, mineral and other.....	263,000	26,000	123,000	134,000
Paints, turpentine, varnish, etc.....	89,000	9,000	38,000	42,000
Paper, manufactures of, books and stationery.....	581,000	52,000	235,000	305,000
Soap, common.....	145,000	23,000	43,000	51,000
Tobacco, unmanufactured and manufactured, cigars and cigarettes.....	228,000	66,000	147,000	268,000
Vehicles of all kinds.....	231,000	127,000	156,000	270,000
Wood, unmanufactured and manufactured.....	228,000	99,000	142,000	329,000
Woolen manufactures.....	406,000	83,000	96,000	154,000
All other articles of merchandise.....	4,142,000	468,000	1,753,000	2,070,000
Total merchandise.....	19,361,000	3,591,000	9,052,000	15,561,000
Specie.....	612,000	169,000	270,000	1,404,000
Goods for the colonial governments.....	307,000	101,000	651,000	734,000
Grand total (except gold and diamonds in transit).....	20,280,000	3,861,000	9,973,000	17,699,000

ABYSSINIA.

PURCHASES BY THE KINGDOM.

LITTLE MACHINERY BECAUSE OF A LACK OF TRANSPORTATION FACILITIES.

A British vice-consul, writing from Abyssinia, says that so far, owing to the difficulties of transportation, but little machinery has found its way into that country. He adds;

Early last year two traction engines were successfully brought into the capital by the Emperor's orders, for the purpose of road making, and two more have reached Adis Abeba recently. The head of an important British firm came personally to interview the Emperor on the subject, with the result that the machines were adapted to the country and the best to be obtained.

A sawmill is already at work at Adis Abeba, and Greek artisans are engaged in quarrying and stone hewing. Machinery in connection with house building generally is likely to be in demand as soon as the means of transport are simplified. The Government is already building in European style, and stone houses may be seen, some even of three stories in height, in the capital. Those who can afford such luxuries, however, are for the present confined to the immediate entourage of the Emperor, and are few and far between.

The import of corrugated iron for roofing from the United Kingdom has lately increased owing to the construction of the Europeanized buildings referred to above. The most salable size is 6 feet by 3 feet 8 inches, 24 G. In Jibuti the price fetched was £11 10s. per English ton.

The demand for enamel ware is on the increase. Cooking pots, water cans, washing bowls, teakettles and cups were all salable. A conical cup (*wancha*) without handle is used for the national drink, "Tej" (*hydromel*). Coffee cups without handles, ladles, and basins are popular.

Rifles, guns, pistols, and cartridges are imported, the authorization of the Emperor being necessary for the entry of firearms and ammunition into the country.

MOROCCO.

IMPORTANT DEVELOPMENT.

RESULTS OF THE INACTIVITY OF AMERICANS IN SECURING TRADE.

Consul-General Hoffman Philip, of Tangier, reports that the export trade of the United States to Morocco remains in an undeveloped condition notwithstanding the excellent opportunities existing in the country for the disposal of certain American products. He adds further:

The most notable cause of this state of affairs is the absence of any direct communication between the two countries, the initiation of which would be of undoubted importance; and another consists in the absence from the field of personal representatives of American interests and enterprise. All signs indicate at present a very important development of Moroccan resources and trade, and representatives of business houses in all the principal countries of Europe are actively engaged here in promoting the interests of each, finding out precisely what best suits the demand and making every endeavor to capture a portion of this growing trade. With the exception of a petroleum company, American exporters have not yet grasped the fact that in an undeveloped country such as this, where it may be assumed that every business firm has its home productions under primary consideration, something more is necessary than vague descriptive literature, or correspondence, to induce satisfactory results.

Excellent opportunities exist in Morocco for the American exporter, but these opportunities are not to be had for the suggesting; they must be actively taken advantage of and sought out.

In regard to the transportation facilities, numerous lines of steamers are running in competition between home ports and Gibraltar, which is but 35 miles by water from Tangier, at present the Moroccan port offering the greatest facilities to foreign trade, and regular freight steamers ply constantly between the two places by which advantageous freight rates can be obtained.

Several American products appear specially adapted to this market, among which cotton and cloth goods are the most important items at present, always supposing that American mills will be prepared to supply the articles most in demand among the native population. Undoubtedly a considerable trade in cement, flour, hardware, wind-mill pumps, cotton-seed oil, phonographs, watches, steel, and various building materials could be quickly built up. [A list of names of merchants in Morocco is on file in the Bureau of Manufactures.]

EGYPT.

THE FUTURE OF ENGINEERING—IRRIGATION AND PUBLIC WORKS.

A dispatch from Alexandria to the London Times says that the decision of the government to raise the Assuan dam is likely to give a gradual but cumulative impetus to agricultural and engineering developments in Egypt, many of which have been in suspense for the past two or three years, during which time the government has steadfastly refused to dispose of the extensive tracts of land, at present barren and sterile. Concerning prospective industrial development in the country the correspondent says:

Within the next few years, in proportion as the work of raising the dam progresses, this land will be ceded to companies and capitalists, to be put under development, and eventually will be turned out as first-class agricultural land, fit for cotton growing and ready for purchase and occupation by a peasantry steadily growing in wealth. The sequence of operations is clearly defined, and the process of converting barren wastes, impregnated with salt, into areas of soil of incomparable richness and fertility is becoming as fine a science in Egypt as that of irrigation. In few countries are agriculture and engineering so closely allied as in Egypt, and without the first the second would here be nonexistent. There is, of course, no creative mechanical engineering in Egypt.

The field for industrial machinery seems incapable of expansion, especially since the government's recent adverse decision with regard to the remission of the excise duty levied on the cotton mills in Cairo—a decision that deals a death blow to the experiment of introducing cotton spinning into Egypt. The factories of the Egyptian Sugar Refining Company are more than sufficiently equipped with plant, and that of an extremely elaborate kind. While the development of new processes in such an industry as that of the Salt and Soda Company may call for new power, the staple engineering requirements in the future will undoubtedly be in irrigation, agriculture, and constructive works in the towns, particularly in water supply, sanitation, and general municipal undertakings, all of which are to a great extent in a backward state.

The land-reclamation enterprises actually in progress in Egypt to-day are extremely numerous. It may be said that where the contour of the land permits of irrigation by gravitation pumping plants are dispensed with; but natural irrigation is by no means common. As 1,000,000 more acres of waste land will, with the raising of the Assuan dam, become available for reclamation, it is evident that large sums remain to be spent on engineering enterprises, and a heavy task lies before the government to deal with the gigantic flood of additional water that will be let loose from the Assuan reservoir. Other projects include the sanitation and water-supply schemes and railway developments both in the Sudan and on the Khedive's line between Egypt and Tripoli.

SOUTH AMERICA.

PERU.

THE IQUITOS REGION.

INVITING FIELD FOR AMERICAN ENTERPRISE.

The following is taken from a long report by Consul Charles E. Eberhardt, of Iquitos, in which he furnishes interesting descriptive and historical matter concerning Iquitos and commercial information about Peru that should be valuable to American business men. The consul writes:

All the imports and exports for the vast territory of trans-Andean Peru pass through the custom-house at Iquitos. As this territory, vast though it is, is almost wholly undeveloped and sparsely populated, it might at first seem that the annual amount of her imports and exports are of small consequence as compared with the ocean ports, and in the matter of imports I am informed that the custom-house at Iquitos is considerably behind the ocean ports, through which large amounts are annually received for thickly settled communities. However, the great value of rubber, the chief article of export from this region, makes up in a large measure for the difference, and in the matter of the total of imports and exports combined it is thought that Iquitos will rank second in the list of Peruvian ports for the year 1906, when the returns from all are received and compared.

SOURCES OF IMPORTS.

It is to be regretted that no record of countries of origin and destination is kept at Iquitos for the imports and exports. The only record, in such detail, that has ever been kept for any period whatever, so far as I can learn, either by the custom-house or private individuals, was in the matter of imports for the year 1905, which was compiled, at the cost of much time and labor, by Capt. Alfredo Martinez Pereira, consul-general of Brazil to Iquitos, and from which compilation the following data are taken. The annexed table shows imports at Iquitos for the year 1905, value stated in United States currency:

Countries of origin.	Value.	Percent- age.
United States	\$310, 976	11. 2
England	1, 077, 916	39. 1
Germany.....	636, 846	23. 1
France.....	431, 679	15. 65

Countries of origin.	Value.	Percent- age.
Brazil	145,561	5.3
Portugal	120,546	4.4
Italy	14,629	.53
Spain	12,783	.46
Peru (Government to municipality of Iquitos)	4,981	.19
China	2,015	.07
Total	2,757,932	100.0

From the foregoing it will be seen that England is far in the lead, having furnished in the year referred to 39 per cent of the imports through Iquitos; Germany is second, with 23 per cent; France third, with 16 per cent, and the United States fourth, with 11 per cent. It would be interesting to compare the foregoing with similar data for the year 1906, but the manner in which the records are kept renders this almost impossible. While the year shows a substantial increase over 1905, and the imports from the United States have advanced in proportion with other countries, it is not thought that the relative positions of the countries importing have been changed. The position held by the United States is not particularly flattering, and yet when one realizes how little effort seems to be made by our exporters at home to get business in the upper Amazon country, it is surprising that we furnish as much as we do.

COMMERCE FOR FIVE YEARS.

A study of the amount of imports and exports for the period of five years from 1902 to 1906, inclusive, together with the duties levied, may be of interest as showing the advance made in that time. It is only possible to give the totals for each year. These are converted into United States currency:

Year.	Value of imports.	Value of exports.
1902	\$1,222,019	\$1,848,854
1903	1,452,646	2,137,488
1904	2,789,293	3,610,325
1905	2,757,808	4,440,091
1906	3,148,718	4,989,899
Total	11,370,479	17,026,658

The amount of duties collected each year is given in the following table, the figures representing United States currency:

1902	\$301,963	1906	\$812,273
1903	266,186		
1904	661,383	Total	2,678,462
1905	636,657		

From these figures it will be seen that with the exception of a slight falling off in imports in 1905 as compared with 1904 there has been a steady increase in both imports and exports, showing in the five years an increase of more than 250 per cent, as is also the case in the duties collected during a similar period. In the matter of tonnage I am informed that the imports are approximately ten times greater than the exports, yet in values the latter far exceed the former, owing to the great value of rubber, which forms the bulk of the export trade.

Through the courtesy of the local manager of the Booth Steamship Company's interests I have been able to collect certain data regarding the tonnage of imports and exports, all of which is handled over the pier belonging to this company. Previous to the expiration of the treaty, two years ago, between Peru and Brazil, when all goods were admitted free of duty in the two countries, they enjoyed business relations of some importance, but at present it amounts to practically nothing. It is true that the Brazilian boat makes regular monthly trips to Iquitos, but aside from carrying mail the business amounts to little more than the small trading vessel or launch. A limited supply of farina (a meal ground from dried yucca plant, commonly used by the natives) is brought in and small shipments of hats and tobacco carried away. The import and export trade of Iquitos can be said to be in control of this steamship company.

TONNAGE STATISTICS.

Owing to the manner in which the manifests are made out no accurate or detailed account of the tonnage of the imports is available, though in round numbers I am told that the following statement of imports can be depended on as being reasonably accurate, the figures representing tons:

	1905.	1906.
From Europe	18,000	25,000
From the United States.....	3,500	7,000
Total.....	21,500	32,000

It is gratifying to note that the amount of imports from the United States has doubled within the past year. These imports have consisted chiefly of provisions, machinery, preserves, canned goods, patent medicines, firearms, ammunition, beer, shooks, and lumber, which have found a ready market. With systematic and energetic canvassing by intelligent Spanish-speaking representatives of our export houses at home the amount of sales of the above lines of goods could be very largely increased and other lines introduced as well.

A detailed account of the exports of rubber for the years 1905 and 1906, showing ports of destination, is given herewith in metric tons:

Shipments to—	1905.	1906.
Liverpool	1,112,296	918,022
Havre.....	771,775	1,035,648
Hamburg.....	128,692	178,875
New York.....	62,863	45,876
Total.....	2,075,626	2,171,421

The shipments of ivory nuts in 1905 were, to Liverpool, 12 tons 837 kilos, and to Havre 44 tons 990 kilos; in 1906, to Liverpool none, Havre 11 tons 926 kilos.

In 1905 the exports of dry hides to Liverpool aggregated 10 tons 530 kilos; in 1906, 7 tons 678 kilos, and to Havre 7 tons 878 kilos.

The gain on entire shipments for the year 1906 over that of 1905 was 54 tons 920 kilos, while in the rubber shipments 1906 leads by

95 tons 795 kilos. This increase would most likely have been greater had it not been for the unusually dry season. While the shipments are always much less during the months from May to August, during the year 1906 the shipping was greatly interfered with on account of the low river, several boats going aground at different times and one remained so for four months. Thus it was that no shipments whatever were made during August. Such shipments as are made to the United States are transferred at Manaos, and it is therefore natural that without direct transportation facilities between Iquitos and New York we should receive directly so small a proportion of the entire shipments.

TRANSPORTATION FACILITIES.

The sightseer and the shipper coming to Iquitos would probably be very differently interested and impressed—the former with the means and methods of transportation employed by the Indians with the rudely constructed, primitive “balsa,” or the graceful, skillfully handled dugout canoe; the latter with the more practical knowledge of the manner in which his merchandise can be handled after having been sent inland nearly 2,500 miles up the Amazon in an ocean-going ship drawing from 15 to 20 feet of water. At Iquitos is to be seen almost daily the “balsa,” a rudely constructed craft of logs securely bound together with a strong hemp-like native vine, no such article as a nail being known in its construction. These balsas are made of the lightest logs obtainable, called “corkwood,” the average dimension of a balsa being 16 by 24 feet, over a part of which, about 2 feet from the logs, a platform is built and covered over with a roof of thatched palms or reeds. This platform is then covered with a matting and the passengers, thus high and dry above the water and protected from the hot rays of the tropical sun, are comfortably situated for their journey.

It is not unusual to see a party of ten to twelve persons on one of these balsas, carrying their baggage, food supply, chickens, pigs, etc., drifting with the current. Of course such a craft is of no value for traveling up stream, and it is so unwieldy that only with great difficulty can it be guided across stream. The balsa itself, with its heavy cargo, is often entirely under water after the logs have become water soaked, and the men who steer are often obliged to stand in water nearly to their knees. Cattle are sometimes brought to Iquitos on these balsas, and six head which arrived recently were half submerged for several days during the latter part of the trip. The dugout canoe is much more generally used, however, and the river is dotted with them at all times, darting about under the skillful management of the paddler, who sits usually in the bow. Men, women, and children all use the paddle as if born to it, as indeed they are, for they depend almost entirely upon the products of the forest and rivers (bananas and fish) for their food and spend the greater part of their lives handling the paddle.

HANDLING CARGO UPON ARRIVAL.

The shipper will probably be interested in seeing the work at the wharf where all the cargo for Iquitos is discharged. Until a few years ago all cargo, from the small supply brought in by the fisher-

man and banana gatherer to the many tons of the ocean steamer, was discharged at an unimproved water front, where steps cut into the bank were the only means of reaching the top of the bank. Steamers were obliged to haul close in, tie up to the bank, and discharge their cargo over a long gangplank. With the increasing trade, however, the Government saw the necessity for more modern methods of handling this traffic, and negotiations were entered into with a steamship company, of Liverpool, with offices in New York, as a result of which a contract was made between the Peruvian Government and the steamship company (the Iquitos business being conducted under the name of the Iquitos Steamship Company, Limited) whereby the company was given a complete monopoly for twenty-five years of all harbor movement, discharge and receipts, in return for the improvement of the water front in the way of pier, custom-house, storage sheds, and tracks. The contract was drawn up in 1903, and in February, 1904, the pier was inaugurated, officials of the company and city of Iquitos joining in making a gala event of the occasion. Owing to the large annual rise in the river—30 to 40 feet—it was necessary to construct a floating pier on pontoons, which is secured to the bank by a strong cable. This pier is 30 by 308 feet, and when constructed seemed entirely adequate to handle all cargo that might be received for some years. It has proven entirely too small, however, and now, less than three years from the time it was constructed, an additional 200 feet is being built.

IMPROVED STORAGE—TRADE WITH NEW YORK.

In 1906 approximately 35,000 tons of imports and exports were hoisted over this pier by a huge crane. The customs-house is a very substantial building, which, together with the storage sheds of corrugated iron, tracks, etc., cover nearly $1\frac{1}{2}$ acres of ground. The sheds have a capacity for 5,000 tons of cargo if stacked 8 feet high, though the tracks and passageways reduce this figure to 3,500 tons. A new shed is being constructed which will enable the workmen to load the cars during the daily rains of the wet season. An additional much needed space for storing 400 tons will thus be gained. The Government, in addition to fixing the tariff charges which the company shall make, levies 3 soles (\$1.50 United States currency) for every 1,000 soles of tariff value of goods, just as is done at other ports where the improvements are owned by the Government, and also received 1 sol for every ton of imports.

Previous to 1904 such goods as came to Iquitos from the United States were shipped by way of Liverpool. In September of that year a system of lighters was established between Iquitos and Manaos, to which the cargo coming directly from New York is transferred at the last-named city. This New York trade has increased so greatly during the past year that it seems quite likely that direct means of transportation will soon be established between New York and Iquitos; in fact, I am reliably informed that steps are now being taken with that end in view. In that event it should not require more than thirty to thirty-five days between the two points. At present, owing chiefly to poor connections at Manaos, one can not depend upon making the journey in less than fifty days.

SEEKING PERUVIAN TRADE.

MARKET CONDITIONS ON WEST COAST OF SOUTH AMERICA.

Consul-General Samuel M. Taylor, reporting from Callao, gives the following practical advice to American manufacturers who desire to build up trade in Peru:

For the first three months of 1906 the exports of Peru amounted to \$6,600,000. Of this, \$2,500,000 was to the United Kingdom, \$1,700,000 to Chile, \$680,000 to the United States, \$551,335 to France, \$490,000 to Germany, and \$14,000 to Japan. The imports during the same period amounted to \$6,500,000. Of this amount, \$1,600,000 was from the United Kingdom, \$1,500,000 from the United States, \$1,100,000 from Germany, \$600,000 from Chile, \$380,000 from France, \$380,000 from Australia, \$230,000 from Belgium, and \$70,000 from Hongkong.

The prevailing products of the United States in this market are in those lines that we have become preeminent in the world over—those lines in which there is competition almost only at home—as sewing machines, typewriting machines, cash registers, and certain classes of electrical appliances; and closely following these are agricultural implements and machinery, certain lines of children's toys, especially of the "express-wagon" class, and chemicals. But products in which we are not preeminent—which we make as good, probably no better, and possibly can sell as cheap as any other country were conditions equal—are not here in any considerable quantities. In the competition American-made goods are at a disadvantage, but some of these adverse conditions can be circumvented. The very prosperity of the United States is a handicap in one respect. The young men of the United States do not come here in the hope of bettering their condition. As a rule they think they can do better at home, and they probably can.

ACTIVITY OF OTHER NATIONALITIES.

On the other hand, the young German, the Frenchman, the Italian, the Swiss, the Japanese, the Chinese, are here in large numbers as proprietors and clerks. They are selling goods over the counter in both capacities, many being in the employ of Peruvians. The retail grocery shops are practically all run by Italians and Chinese. The Italians also own and operate the hotels. The French are well represented in the millinery, dry goods, dressmaking, and tailoring establishments. Much of the boot and shoe making and selling is done by the Chinese. The Germans are in the chemical shops compounding prescriptions, and, in fact, the German is pretty much everywhere as a helper, for, in addition to his own language, he speaks English and Spanish readily. The Japanese also have a foothold and are improving it. Their shops are up-to-date, and, like the German, they speak English and Spanish. Their goods are well placarded in English. The English are here, but in a larger sense. They are not retailing much, but are wholesaling extensively. Many shops feature English-made goods in special advertisements. The English having a good grip on the shipping facilities, are an important factor.

Other things being equal, naturally these various nationalities

favor the country of their birth in their selection of goods and in recommending to customers. There are German, Italian, and English banks. Banks follow commerce as surely as trade follows the flag. These are some of the adverse conditions in the country, and if the United States would contend successfully against them it must be with as "good goods" at a less price and quicker delivery. As things are now, this evidently can not be done else it would have been done already. Assuming that we have "as good goods" the problem is to give better prices and quicker delivery; and this people needs to get goods at less price. As a people their purchasing power is very limited, yet the cost of living is from 10 to 30 per cent greater than in the United States, and 50 per cent greater than in Europe. Comparatively speaking, nothing is cheap here, except what a favorable climate makes unnecessary. Climatic conditions being so equable, mild, and dry make certain articles of wearing apparel, as rain coats, heavy topcoats, overshoes, and umbrellas unnecessary, except in the mountainous districts; and certain articles of domestic economy, as coal and other fuel, stoves and grates, for heating purposes, are likewise unnecessary. But for the rest there is no escape from the increased cost.

SELLING PRICES OF MERCHANDISE.

With practically no manufacturing competition at home the people are dependent on foreign-made goods and products of nearly every kind. Except on implements for agricultural and mining purposes, typewriting machines, and a few other favored articles there is an average tariff duty of 45 per cent. The cost of an article, then, to the consumer is the price of it when it left the country of origin plus transportation, plus handling, plus 45 per cent tariff (the customer in this case, for want of home competition, pays all the duty), plus profit, usually large, plus breakage of 10 per cent, plus commission charges. This foreign trade is handled largely through commission merchants, who, having established their connections, are not particularly interested in exploiting the goods of new aspirants for this market.

Quick sales and small profits is not a maxim that animates the retail trade here to any great extent. On the contrary, one sale and three profits is preferred. The effect of this policy is greatly to retard consumption. Some American manufacturers in established lines are forestalling this practice by fixing the price, usually the United States price, which the retailer must not exceed, and they do their own advertising, where mention is made of the retail price. I think it safe to say that were retail prices more reasonable there would be from one-third to one-half more goods consumed here. The tariff is credited with the high prices, but in many instances the tariff is a subterfuge, as a little figuring shows profits of 100 to 125 per cent over and above all expenses. Again, when prices are not fixed by the manufacturer, there is an asking price and a final selling price, and the price obtained ranges all along between.

ACCESSIBILITY OF WEST COAST.

The west coast countries of South America are nearly 2,000 miles closer to the manufacturing districts of the United States than they are to the manufacturing districts of Europe, and the proper utilization of this advantage in distance ought to more than offset the

disadvantages enumerated; just as our proximity to Canada, with superior transportation facilities, gives us great advantage over all competitors there.

Under present conditions from New York to Callao by Panama requires at least from twenty-two to twenty-eight days, when with reasonably speedy ships on both sides of the Isthmus, with sailings arranged to make quick connections, it ought not to take more than ten days. Ships from Europe, with 2,000 more miles to travel, can and do have their cargoes carried south of the Isthmus along with cargoes from the United States that arrived several days earlier. The American who contemplates a trip to South America by Panama has no assurance that from four to seven days of his time will not be practically wasted in a tedious, expensive, and, in the main, most uncomfortable wait in Panama, so that few who are not compelled to do so ever attempt the trip.

There is a regrettable absence of the American tourist, yet it is a country teeming in much that is extremely interesting and a climate that is unsurpassed in mildness and attractiveness; in fact, just such conditions as should appeal to the taste of many of those who travel. But the Americans who come here are interested mostly in mining. Sight-seeing and disposing of United States products are not in their line. The business man in the United States, with four or five weeks to spare from his business, and probably recommended to take an ocean voyage, does not come south. It takes too long to get back. He goes to Europe, where he can probably have two weeks or so to study the different conditions and note, with his practiced eye, where he can make new markets for his line of goods. Yet every step is in countries that, commercially speaking, are hostile to him. He is in the midst of his strongest competitors; hence is an invader, an intruder, and, as a business man, is unwelcome.

SOUTH AMERICAN CONTRAST.

How very different here, so far at least as the native population is concerned. He is given a free hand. There are no prejudices against the products of his factories. There is no feeling that the goods he may bring here will supplant home industries and home labor. He is welcomed, first, for what he is and then for what he represents. He may enable the people to obtain goods at less price; hence he is a benefactor, a visitor that helps. Again, after distances have been more or less eliminated by superior shipping facilities, two essentials remain to be considered. This trade is not here for the mere asking, and those firms in the United States who think they can build up a demand by simply letting the people here know by letters and pamphlets that they have certain things to sell are about certain to meet with disappointment. On the other hand, those firms in the United States that have had the courage and pluck to send competent salesmen here, with a thorough knowledge of their business and able to explain it in the Spanish language, are getting good returns on their investments.

When the goods have been sold, a most important matter is the packing. If firms are not prepared to pack their goods to stand the roughest kind of treatment, or if they feel they can not assume the additional expense that such packing entails, they had better not attempt to send the goods at all.

ARGENTINA.

BAD BUSINESS METHODS.

DRAWBACKS TO AMERICAN TRADE WITH THE REPUBLIC.

Consul-General Alban G. Snyder, of Buenos Aires, calls attention to the bad business methods which have been pursued to a large extent by certain American houses doing business in Argentina, with the detrimental effects they will, if continued, have upon an expansion of the trade of the United States, and likewise on certain other disadvantages with which American trade has to contend, and suggests remedies for the same. He states that this report is not only the result of statements and experiences of merchants of Buenos Aires, both native and foreign, but is submitted after a careful personal study of conditions, and that, in his judgment, some of the evils, such as faulty packing, presented in the American trade with Argentina, exist to a far greater degree than was considered possible. The consul-general specializes thus:

Some time ago a merchant came to this office to certify to the weights of a shipment of a certain class of cotton goods from the United States. American exporters have at present a monopoly of this class, as it can be obtained from no other country. He found that the packing in which the goods arrived weighed some 8 pounds per bale more than shown in the invoice, which excess weight had been included in the merchandise proper. He had failed to get satisfaction in the past, and finally had to send other papers forward. The effects this will produce, if continued, are evident. He informs me that nothing could be done at present, as American manufacturers had them at their mercy, but he had learned that a business had been started in this line by English capitalists in Japan, which bids fair to prove a success, and that he was quietly negotiating with said parties with a view of taking his trade to that country if possible.

A prominent merchant has directed attention to a shipment of imitation leather for railways, ordered from sample, but which bore no resemblance at all to the sample. The importer wrote a letter to the American firm, to which they replied in a very abrupt and discourteous manner, practically telling him he did not speak the truth. Is this good business? Is this procedure conducive to trade expansion?

UNSATISFACTORY LUMBER SHIPMENT.

A few days ago I went down to the "Boca" to see a shipload of lumber just arrived for a very old firm here which has imported lumber from the United States for twenty-one years, and until now, although losing from 2,000 to 5,000 feet on every shipment through short measurement, has preferred to lose same rather than be termed "grumblers." But out of the present shipment of over half a million feet they will lose about 250,000 feet. I saw the shipment myself, and it is black, full of resin and knots, and while shipped for inch lumber fully half is not even good one-half-inch lumber. In spite of

this the bill of lading bears the statement of an official lumber measurer of Gulfport, Miss., to its being one of the best shipments from that port in years and fully up to the standard. This firm has a good name, and nearly all of its lumber is sold before arrival, thereby doing away with storehouses, but letters were produced from a number of parties stating that parts of this shipment had been received, rejected as useless, and held to their account awaiting removal.

This is only one of the many like cases in regard to lumber as shown by the number of copies of survey on file in this office, and the pecuniary loss does not enter into the matter so much as does the damage to the business reputation of the firms involved. Ships were unloading excellent lumber at the same time and place, and in view of the order sent and the class of lumber the shippers claimed to have sent there is no excuse for such a consignment.

The shipper and importer both suffer in such cases, but the importer more, being on the ground, and people immediately conclude that he bought a cheap article and tried to pass it off for a superior quality. It does not tend to create any friendly feeling for American lumbermen, and while we have the market now it takes no prophet to predict what the victims of such practices will do should a source of supply be opened elsewhere.

CARELESSNESS THAT INJURES BUSINESS.

The foregoing are only a few of many instances which I have seen or had called to my attention, but they serve to show one great evil, entirely our own, which must be remedied if we expect to have marked success in this market. I do not mean to infer that these instances reflect the general practices of our exporters, nor is it meant to infer that these things have been done intentionally, but it does show, to say the least, either an inexcusable carelessness, contempt for these markets, or blind indifference to future progress.

A shipment of American searchlights recently arrived badly packed and absolutely useless. As a consequence some have not even been taken out of their original packing. The other day I inspected a consignment of very valuable tools which arrived badly packed. They were, without an exception, all rusted, with the paper sticking to many and a total loss. The clerk in this office was called into a prominent business house recently to see a shipment of 120 lithographing stones which had arrived from Germany in perfect condition. His attention was then called to six such stones just received from the United States, every one broken. A valuable consignment of the finest furniture recently arrived in this city for an American resident, which, with a few exceptions, was badly damaged and some pieces ruined. On his way out from New York the party in question stopped for a short time in Paris, and while there purchased a few extra pieces, which in every case reached here in as perfect condition as when they left the factory.

IF NECESSARY, CHARGE FOR PACKING.

Why do not our exporters pay attention to this matter? Some American exporters pack miserably, and it has reached such a point that any intimation that good packing is possible in the States is imme-

diately ridiculed. If necessary, pack well and charge for it, as foreign houses do, for this is certainly preferable to the loss of time, money, reputation, and business involved in the other procedure.

American houses do a large business at home through the medium of catalogues and advertising, and when an order is received for goods which have become exhausted, or which were never carried in stock at all, they have often successfully induced their patrons to buy some other under the plea that they are just as good and serve the purpose equally as well. This method in the great majority of cases will not do here at all. An advertisement strikes the fancy of the Argentine people, they want the article, and immediately set about getting it, and want it exactly as represented; and, even if the substitute is just as good or better, they at once look upon it as an attempt to impose upon or dictate to them, and such methods only serve to irritate them. If necessary, they should be advised that the goods ordered are not in stock but will be supplied at the earliest possible moment, but the attempt should not be made to substitute others, for, no matter whether such action is from good or other motives, it is generally viewed in the latter light. Many similar examples occur here from day to day, but there is no necessity for naming more. The idea to be conveyed is that American merchants, if they desire to get this business, must try at all times to please the people by complying with their wishes and never do anything which might give rise to the feeling among them that they are being dictated to or imposed upon.

CREDITS.

What is true of South America as a whole in respect to credits is equally true of Argentina, for it is a noted fact that American houses give very short credits, or none at all. It may be said with some reason that the lack of banking facilities between Buenos Aires and the United States renders the granting of credit difficult, but some way ought to be found to remedy this. European houses give two, four, and six months' credit, and while it has been said that they stand to lose by it, except in extreme financial depression they lose very little in the long run, and certainly gain a great deal. In these countries a large business is done on the credit system and installment plan, and it frequently happens that houses perfectly sound financially are not able to pay cash for large orders, having much capital out, and have to turn to foreign houses where they are able to obtain credit, when, as in some cases coming within my personal knowledge, they would have preferred to purchase the American article, it being better and cheaper, but the question of credits made it impossible. Of course credit is not given in all cases, but foreign houses have their representatives on the ground, who make it their business to become acquainted with importers and their moral and financial reliability.

LOCAL REPRESENTATION.

One thing noticed in these countries is the large number of foreign representatives of business houses, with an occasional American thrown in to relieve the monotony, but the number of the latter is scarcely worthy of mention. This is a mistake. While in some

places catalogues are of great service and are practically the only means adopted by American exporters in conducting a business which must necessarily be a mail business, they are of secondary importance in the Argentine. To a great degree this country has grown beyond the catalogue stage, and something more substantial is demanded. People want to see and know what they are buying, and when they decide to have it generally want it at once. This can not be done through catalogues, but through agents carrying a line of samples or through established agencies carrying the goods in stock. By far the better way is to send men here, thoroughly conversant with Spanish, to study the desires of the people, the market, etc., and then, if the report is favorable, establish houses and push business. If American merchants have an article in which they have confidence and which has taken well at home, they need have no fear of the results here, for Buenos Aires is a modern city in practically every sense of the word, with somewhat the same tastes and needs as American cities, and the same can be said of the Republic at large. No attempt should be made to push any inferior merchandise upon the market any more than at home, for it will not go, and will only serve to make the path thorny for serious enterprises that may enter the field later.

Almost every article of American manufacture which has become well established here has been so established by the manufacturers having a representative or agency of their own, or by placing the agency for the same with some well-known business house; but on the whole the method of foreign firms of establishing their own agencies or houses is better.

Owing to the size of Buenos Aires and the character of its population the most profitable part of some trades is confined to the great mass of the common people, through the various small shops, who would probably never be reached by correspondence, or, at least, never be induced to purchase anything by this method.

The lack of shipping facilities between the United States and the Argentine Republic, and the fact that what does exist is almost entirely in the hands of foreigners, with the disadvantages this implies, was treated of in a previous dispatch.

A good way to make sales is to approach parties so as to make friends of them, for a great many are governed in their business transactions by their likes and dislikes. To illustrate: Some time ago the representative of a large American paper house approached the owner of one of the most prominent newspapers here in order to get his business and was abruptly informed that it was no use, as he always got his paper from a certain firm. "But," he inquired, "you admit our paper is better?" "Yes." "And cheaper?" "Yes." "Then why not buy it?" "Oh, well," was the reply, "you see ——— has always been a very good friend of mine, and we have had such long business relations in which we have always agreed so well that I do not want to change now."

Many like characteristics exist, but on the whole the people are just as wide awake and have the same knowledge of the outside world, especially the better classes, as any people. It is just such points that render a careful study of the market so necessary, and it is a dangerous policy to enter it in a haphazard fashion. Every market has its own peculiarities, which differ widely at times.

American goods are popular, and well-known articles, such as windmills, agricultural machinery and implements, tools, machinery, graphophones, and many others have driven out a great part of the competition. Any American firm which believes it worth while to enter this market in a serious way, after studying the conditions carefully and making up its mind to conform thereto as much as circumstances will permit, will not regret it.

BRAZIL.

SHIPPING INFERIOR GOODS.

AMERICAN EXPORTERS CHARGED WITH FAULTY METHODS.

Writing from Rio de Janeiro, Consul-General G. E. Anderson states that he regrets the necessity of calling the attention of American exporters concerned to the frequent shipment of goods to that market which are not up to contract requirements, with the result that the reputation of American goods in the respective lines is being injured. He specifies:

This has particularly been true of shipments of resin, lumber, and codfish. Complaints at Rio de Janeiro are echoed by complaints from Santos. In the line of lumber there have been several shipments received wherein the pine cargo was not only under proper measurements, but contained considerable cargo with round or bark edges and other faults, reducing its availability to that of sizes and grades below those called for in the contract of purchase.

In the line of resin there have been three cargos within a comparatively short time which consisted of grades below contract requirements. One shipment was declared by surveyors in the trade here to be clearly and unquestionably of grade "I" instead of grade "K," as called for by the contract and as certified to by the American inspector. At the same time the surveyors reported that there were traces of the letters on the barrels having been changed. In the line of cod fish the goods were sold by a New York house, but shipped from New England and Newfoundland, and were simply goods of a grade below those bought, and were marketable here at a much lower rate than even the difference in the purchase price would indicate. Since the complaints come from different firms and different ports it appears that there is need of general attention to the matter.

In addition to the general nature of mistaken business policies as are indicated by such shipments, it may be well to call attention to the fact that practically all of the shipments of spruce pine into Brazil in 1906 came from Canada instead of from the United States, as in 1905. Even in resin the United States has no such a monopoly that it can afford to play with the trade, while the effect of the shipment of inferior goods upon general American trade is too direct and vital to need comment.

BOLIVIA.

FOREIGN TRADE.

IMPROVED COMMERCIAL CONDITIONS—AMERICAN OPPORTUNITIES.

Minister W. B. Sorsby, of La Paz, reports on the foreign trade of Bolivia as follows:

The international commerce of Bolivia for the year 1905 aggregated \$33,439,429 in American currency, as against \$25,249,396 for the year 1904, an improvement in the expansion of the country's commerce of \$8,190,033 for the period stated. The imports for the year 1905 are stated at \$13,377,380 in value, as against \$10,145,751 for the year 1904, and the exports for the year 1905 at \$20,062,049, as against \$15,103,645 for 1904, thus demonstrating an increase of \$3,231,629 and \$4,958,404, respectively, in the imports and exports of the country for the one year, 1904-5. The origin of the imports are classed in the following order: Germany first, Great Britain second, Chile third, Peru fourth, the United States fifth, Argentina sixth, France seventh, Italy eighth, Belgium ninth, Spain tenth, Ecuador eleventh, and all other countries combined not reaching \$48. There is no classification of the imports, but the exports are classed as follows for 1905: Tin, \$12,582,467; india rubber, \$3,516,515; silver, \$1,847,205; copper, \$1,187,842; bismuth, \$722,978; gold, \$18,776; and lead, antimony, wolfram, cobalt, coca, quina, coffee, etc., \$186,266.

SPECIAL COMMERCIAL PRIVILEGES.

In connection with the classification of the imports with respect to their origin, and to the very high rating accorded to Chile and Peru, it may be observed that for many years both countries enjoyed special commercial privileges with Bolivia, but owing to the terms of the Bolivia-Chile treaty of October 20, 1904, and the Bolivia-Peru treaty of November 27, 1905, these special commercial privileges ceased on July 1 last, and it is very probable that the import statistics for the year 1906-7 will show a material decrease in the volume of the imports from both these countries and at least a corresponding increase of the imports from the United States. This material increase of the importations from the United States will be due to the generally improved commercial conditions notable during the last two years; to the equalization of the commercial conditions as between Peru and Chile and the United States, owing to the removal of the special tariff conditions heretofore prevailing in favor of these countries, and will be additional to the very considerable amount and value of railway material and supplies which will be imported from the United States during the next few years in connection with the railway concession given to New York parties. Until American capitalists and manufacturers take a more serious view of and interest in the mineral resources of Bolivia, and especially in the tin and copper resources, the great bulk of the exports will continue to be enjoyed by England and Germany.

CHILE.

CONGESTION AT VALPARAISO.

INABILITY TO HANDLE IMPORTS—PROPOSED REMEDIES.

Consul A. A. Winslow reports that there is a great congestion of imports at Valparaiso, which has existed more or less ever since the earthquake, notwithstanding the fact that there was more freight handled during November, December, and January than ever before during a like period. The consul continues:

Large quantities of merchandise are piled up on the docks everywhere. This can be done easily during the dry season, which ends about April 15, but thereafter great loss is liable to result. Another serious trouble has been the inability of the railway to remove the freight to the interior under the old management and the present equipment. The Government has put the management in the hands of a Belgian and has placed orders for new equipment. It is also proposed to double track the line to Santiago, which is very much needed and which must be done to adequately handle the constantly growing business of this country. Also extensive dock and harbor improvements are contemplated for Valparaiso in order to handle the constantly growing commerce. In these improvements American interests should have a part, for large amounts of materials will be needed from abroad to complete them.

President Montt, with a corps of experts, spent several days in this port recently going over its needs, and radical changes may be looked for in view of the fact that the last Congress gave the President special authority to act in certain of these matters. The Government seems to be awake to the fact that an especial effort must be made to meet the demands of the greatly increased foreign trade and that which is in sight in the immediate future. The business outlook is excellent.

PARAGUAY.

ASUNCION PUBLIC IMPROVEMENTS.

CHAMBER OF COMMERCE SEEKS BETTER PORT FACILITIES.

Consul John N. Ruffin transmits from Asuncion a translated condensation of the annual report of the chamber of commerce of the capital of Paraguay, some of the points being as follows:

The chamber joins the Paraguayan Transport Society in recommending the improvement of the bad roads; also recommends a change in the customs tariff, which is necessary, it states, because the country manufactures very little. It asks for further harbor and landing facilities for imports at Asuncion, so that vessels may reach the port the entire year. The erection of more deposits and new docks was begun last November, although they are not sufficient for the accommodation of the increasing commerce. Gold quotations in 1906 were highest on August 7—116.5 per cent—and lowest on October 3—99 per cent—the average being 109.2 per cent.

[The new officers of the Asuncion Chamber of Commerce are listed for reference at the Bureau of Manufactures.]

NORTH AMERICA.

NEWFOUNDLAND.

RECENT COMMERCIAL PROGRESS.

FURTHER OPPORTUNITY FOR THE ENLARGEMENT OF AMERICAN TRADE.

Consul George O. Cornelius, of St. Johns, furnishes the following report concerning the improved commercial and industrial conditions of Newfoundland in 1906, and the large advances in the imports and exports of the colony as compared with former years:

This review of the prosperity which prevailed in the colony last year and the encouraging outlook for its continuance will serve to show that Newfoundland is a country to which American exporters can turn their attention with profit. The increase of over three-fourths of a million dollars in the imports from the United States in 1906 as compared with 1905 illustrates the possibilities in this direction and proves that the traders of the island, which recognizes no tariff discriminations or preferences, placing all imports on an equal footing, are prepared to buy in the best market. Hence, with its trade growing at the rate of a million dollars per annum, it can be seen that there is room for American manufacturers and exporters to rapidly enlarge their sales in this market.

The year 1906 was without exception the most prosperous and successful year in the annals of the island. Alike in its fiscal operations, in its commerce, in its fisheries, and its general industrial movement, its affairs show a marked expansion; its people have reached a degree of comfort previously unattained, and there seems no reason to doubt a continuation of these very gratifying conditions.

As its fiscal returns are only compiled for the financial year which ends on June 30, it is impossible to obtain any data covering the calendar year except those of the receipt of customs duties on imports, and these, for the past seven years, were as follows: 1900, \$1,962,502; 1901, \$1,969,804; 1902, \$2,007,963; 1903, \$2,163,362; 1904, \$2,231,620; 1905, \$2,246,737; 1906, \$2,306,229. I select these seven years because it is within this period that the policy of reducing the duties levied on fishing, farming, and mining implements, curing salt, flour, molasses, and kerosene oil has been put into effect, and the augmentation of the customs revenue has been accomplished since then, in spite of reductions aggregating \$250,000 a year.

INCREASED FOREIGN TRADE.

The average annual imports for the five fiscal years ending June 30, 1906, were \$9,291,826 and the average exports \$10,533,308, against a yearly average of \$6,488,415 and \$6,815,318, respectively, for the previous five years. This comparison proves how steady and sustained has been the growth of both imports and exports and how

much the circumstances of the people must have improved, as there is only an increase of 1 per cent per annum in the population, whereas these figures represent, roughly, an increase of 50 per cent in the value of the total trade. The figures which exhibit the distribution of imports and exports for the same five fiscal years are equally instructive.

Year.	United States.	United Kingdom.	Dominion of Canada.	Other countries.	Total trade.
IMPORTS.					
1902.....	\$2,501,806	\$2,244,178	\$2,612,042	\$478,659	\$7,886,685
1903.....	2,920,914	2,143,464	2,869,879	545,687	8,479,944
1904.....	2,991,022	2,497,138	3,423,255	587,249	9,448,664
1905.....	2,750,144	2,657,208	4,105,589	766,352	10,279,298
1906.....	3,609,192	2,661,196	3,521,839	631,947	10,414,274
EXPORTS.					
1902.....	1,207,461	2,104,932	1,046,109	5,194,022	9,552,524
1903.....	1,357,031	2,173,050	1,102,669	5,348,764	9,976,504
1904.....	1,470,498	1,993,995	1,102,708	5,814,697	10,381,897
1905.....	1,418,624	1,940,845	1,113,848	6,195,925	10,669,342
1906.....	1,278,997	1,662,612	1,177,169	7,367,498	12,086,276

The most significant feature of the foregoing table is the remarkable increase in the colony's imports from the United States, which have grown by \$859,048 in a single year, while those from the United Kingdom have remained stationary, and those from the Dominion of Canada have declined by \$583,650 in 1906 as compared with 1905. The United States during the past year has taken half a million dollars of Canada's trade, and secured in amount more than the whole of the increased imports.

EXPORTS OF MARINE PRODUCTS.

Another noteworthy circumstance has been the increase in the value of the exports to "other countries," a fact explained by the steady appreciation in the price of Newfoundland's fishery products, notably dry codfish, in the markets of southern Europe, Brazil, and the West Indies. The colony's exports of dry cod in 1906 amounted to 1,481,025 quintals (Newfoundland fish quintal, 112 pounds), valued at \$7,864,719, against 1,196,814 quintals, worth \$6,108,618, in 1905, and 1,360,373 quintals, worth \$5,943,063, in 1904. There has been a marked improvement in the value of this commodity in recent years, due in a large measure to the American and Canadian fisher folk being unable to secure enough to satisfy their home markets, with the result that Newfoundland stocks had to be sought. Other fishery products, such as cod, seal, and whale oil, whalebone, herring, lobsters, salmon, etc., exported during the past three years in question amounted to \$2,253,238, \$2,615,557, and \$2,592,024, respectively.

For the past five years the value of the colony's "other" exports has been stationary at about \$2,000,000, but the value of the fishery exports has increased by nearly 50 per cent. Thus the enhanced prosperity of the colony is due entirely to the better prices obtained for the product of the fisheries.

The cod fishery for 1906, beginning in May and lasting until November, was rather below the average, aggregating, for the Bank, Shore, and Labrador fleets, about 1,200,000 quintals. The figures of the Bank and Shore catches are not yet available, but the export from

Labrador direct to European markets was 250,887 quintals, valued at \$1,030,432, or an average of \$4.09 per quintal. This represents about half the quantity taken on that coast, the remainder being brought back to Newfoundland to be cured. The increase in the Labrador exportation has been gradual and substantial ever since 1900, when but 178,578 quintals were shipped direct to market; despite this the price has also increased, the average being in 1900 \$3.10 a quintal, but rising gradually each year to \$4.09, the total value of the export then and now being \$505,476 and \$1,030,432. The increase in price has more than offset the shortage in the general price of cod, the figures for the best grade reaching \$6.50 to \$7.25 per quintal—higher rates than had been known for thirty years. The result has been that, stimulated by the successes of the past four or five years in the cod fishery, more of the Newfoundland people are engaging in it than ever before, and about 150 vessels have been added to the fishing fleet the past twelve months, half of them built in the colony and half purchased abroad.

INCREASED SEAL CATCH—WHALE FISHERY DECLINE.

The seal catch for 1906 was 341,836, with a value of \$607,544, being one of the best seasons for thirty years. In 1905 177,105 seals were caught, worth \$311,224, and in 1904 284,473 seals, worth \$403,374. Last season's market for seal oils and skins was most satisfactory. The coastwise whale fishery, of which so much was expected, has utterly collapsed. Started about ten years ago, with modern steamers and equipment, the first operators did so well that from a single ship it grew to 17. The result was the speedy killing out of the herds of gigantic mammals, 1,500 of which were destroyed in a single year. Gradually, however, the catch fell off, and within the past year six or seven of the steamers have been sold for similar work on the British Columbia and Japanese coasts, while the companies owning them have gone into liquidation. During the season of 1907 it is not expected that there will be more than seven or eight whalers operating in all.

The winter herring fishery on the west coast, recently ended, and which has been the subject of so much controversy between Newfoundland, Great Britain, and the United States, has been one of the most successful on record. Its distribution was as follows:

Year.	American vessels.			Colonial vessels.		
	Vessels.	Catch.		Ves-sels.	Catch.	
	Number.	Barrels.	Value.	Number.	Barrels.	Value.
1904	67	88,708	\$143,581	11	16,718	\$42,256
1905	43	46,780	74,776	39	38,861	69,712
1906	65	70,349	268,596	43	45,887	183,548

AGRICULTURE.

Farming has been practiced only in a rudimentary way. Except in the vicinity of St. Johns, where there is a ready market for such farm stuffs as are grown, and in one or two sections where rich, arable land exists, there is no farming class which lives exclusively by the products of the soil. The fishermen, however, are nearly all

possessors of gardens, in which they raise potatoes, turnips, and cabbages for domestic consumption; poultry, swine, and cattle are also raised for local needs or for sale in the larger centers.

An attempt to stimulate greater interest in agriculture has recently been made by the governor of Newfoundland, who says that in 1891 there were 64,656 acres of improved land and 19,392 acres of pasture land in the colony. In 1901 the figures were 96,000 acres and 34,00 acres. Among the principal farm products in 1901 were 54,000 tons of hay, valued at \$810,000; 541,000 barrels of potatoes, valued at \$541,000, and 65,000 barrels of turnips, valued at \$65,000.

Peas, turnips, potatoes, beans, and cabbages were imported in 1906 to the value of \$112,000, which it is contended could be raised in the province. Other imports in 1906 which it is said should be reduced by local production were as follows: Animals, \$139,728; apples, \$38,272; butter, \$123,438; cheese, \$35,608; eggs, \$4,386; flour, \$1,666,314; hay, \$49,504; jams, \$6,288; lard, \$56,118; meats, \$161,462; oatmeal, \$17,364; oats, \$138,079; oil cake, \$75,913. It is being proved by experiment that the colony can produce to the full extent all the oats, barley, wheat, and rye needed therein. It is a matter of selection to get cereals that will ripen in the island, but scientific farming has not yet been attempted. Land is plentiful and cheap. It is urged that the government should introduce the small loan system adopted by the Australian colonies to help the farmers and encourage them to turn their attention toward the land. Experimental farms and traveling teachers are also needed.

FOREST RESOURCES.

The forest wealth of Newfoundland is extensive and is being more largely developed. The products are varied, the chief lumber being spruce, fir, juniper, birch, witchhazel, aspen, white maple, and white, yellow, and red pine. The white pine is of a superior quality and the mainstay of the colony's lumbering industry. The spruce is also in great demand for rough work and is of remarkable strength, though much of it is small, owing to the light soil and so much of the woodland being burnt over. A large and expanding market is being found for both in Argentina. The country is easy of access to the lumberman, the coast line of 6,000 miles being broken by innumerable inlets adjacent to the forest belts, while many of the rivers and lakes are equally well adapted both for floating logs to the mills and for affording horsepower needed to drive the saws. The colony has suffered greatly from forest fires and no adequate regulating of reforestation. It is estimated that during the past century forest fires throughout the island have destroyed about \$75,000,000 worth of growing timber, and the government is now enforcing a more vigorous policy as regards forest fires and is taking steps to arrange for reforestation areas in the near future.

Negotiations are in progress for the launching of two more large pulp mills in the colony. As all these contemplate the use of American machinery, it is apparent that the equipment of one or more establishments, each of which represents a capitalization of \$5,000,000, will do much to swell the total of American exports to the island. The value of the forest wealth exported from the colony during the last year was \$302,758.

MINERALS—LOCAL INDUSTRIES.

The colony has long been known to be rich in minerals, but thus far only copper, hematite iron, and iron pyrite mines are being operated on a large scale. Copper has been worked more or less extensively for about fifty years, and the annual output of late is about 70,000 tons, valued at \$360,000. Hematite iron is exported to the extent of about 750,000 tons, valued at about as many dollars. Iron pyrite is sent away to the amount of 50,000 tons, valued at \$240,000. The average value of mineral export for the past four years is \$1,377,374, lesser products of barite, slate, talc, etc., being included. For some years past boring for coal under government direction has been carried on over an extensive area in the interior, where the existence of carboniferous deposits has been proved, but thus far no substantial progress has been made locating any of commercial value.

The employment afforded to hundreds of men in the mining, lumbering, and other pursuits subsidiary to the fisheries, especially during the winter, when their usual avocations can not be pursued, has been the means of altering the circumstances of the people generally, as they now can command steady work at remunerative wages, whereas formerly they were without work for almost six months each year. In St. Johns the manufacturing of articles which enter largely into domestic consumption has been promoted extensively, and give a livelihood to hundreds of operatives. The colonial import tariff tends to assist local industries by giving low rates for raw materials, and occasionally bounties are provided.

CANADA.

EXPORTS TO WEST INDIES.

TOUR OF DOMINION BUSINESS MEN TO PROMOTE TRADE.

Consul Joseph E. Haven, of St. Christopher, sends the following report of a meeting held in St. Kitts for the purpose of advancing Canadian trade in the West Indies:

In order to increase the commerce and trade between Canada and the West Indies, a committee representing the boards of trade of the several business centers of the Dominion, on the suggestion of Sir Daniel Morris, chief of the imperial department of agriculture in these colonies, have been making a tour of the West Indies, going as far south as British Guiana, South America. The party consisted of representatives of the boards of trade of Halifax, Toronto, and St. John, New Brunswick. A large meeting was held under the auspices of the St. Kitts Agricultural and Commercial Society. Addresses were given by the delegates explaining the special object of their mission and that they desired in a practical manner to discuss with those present the whole subject of extending Canadian trade to the West Indies, and particularly in relation to those articles of export which the West Indies consumed but which were largely imported from the United States

A TRADE COMPARISON.

The commercial agent for Canada in St. Kitts gave a résumé of the statistics of imports and exports, with special reference to each

item in which Canada is interested. The figures were based on the statistics of 1905, as the figures for 1906 were not as yet available. While Canada took \$635,093 of exports out of a total of \$1,047,402, or about 66 per cent, all that St. Kitts had imported from Canada in return was \$60,850 out of a total import of \$792,996, or a little over 7½ per cent. The principal object which the delegates had in view was to ascertain in what way that condition could be remedied. Each item of the imports that Canada could produce, but which chiefly came from the United States, was taken up and commented upon. The main articles in 1905 were as follows:

	Imports from United States.	Imports from Canada.		Imports from United States.	Imports from Canada.
Flour.....barrels..	20,656	70	White pine.....feet..	279,645	11,800
Bread and biscuits...do..	8,859	None.	Linseed meal.....pounds..	834,020	112
Beef.....pounds..	119,916	None.	Soap.....do..	26,758	6,280
Ham and bacon.....do..	19,377	145	Boots and shoes.....	\$6,682	\$492
Lard.....do..	45,129	None.	Carriages.....	\$1,290	\$58
Oleomargarine.....do..	96,387	None.	Furniture.....	\$988	\$131
Pork.....do..	315,500	100	Leather and saddlery.....	\$1,664	None.
Refined sugar.....do..	25,837	24,100	Paper and stationery.....	\$2,068	\$117

The several merchants present discussed various items and explained why preference had been given to American productions in the islands. The delegates in return gave explanations in regard to Canadian products and making reference to those items in which Canada now held the preponderance of trade, such as butter, cheese, spruce lumber, shingles, and fish.

PREFERENTIAL RATES PROPOSED.

The suggestion was made that the best and most effective way of remedying the position was that a discriminating duty should be levied in favor of Canadian products as against those from the United States in return for the benefits derived under the Canadian preferential tariff.

With regard to the exports to Canada, a discussion followed on the share of the preference which Canadian refiners had accorded to West Indian sugars, the delegates referring to the advantages which might be expected to result from a closer union with Canada. They claimed that Canada was honest and generous, with laws prohibiting the manufacture of inferior articles, and that articles of export which came from the United States were in many cases Canadian goods shipped through United States ports. The sentiment was expressed by the islanders that it would not be fair to impose higher duties on American breadstuffs to please Canadians unless they could furnish those articles most suited to these markets. It was stated that Canadian lumber, in the same manner as flour, is sent to the West Indies as an American product because the inland transportation does not allow the Canadian to compete. In regard to oleomargarine, straw wrapping paper, etc., it was remarked that Canada would not try to enter these fields, as her laws forbade the manufacture of articles of inferior quality.

Considerable enthusiasm was shown throughout the meeting, but a feeling was evident that the union of trade and patriotic sentiment could only bring about a loss to the West Indies unless Canada could supply the demand with goods equal in quality and price to those of other countries.

NEW LAWS IN BRITISH COLUMBIA.

COMMERCIAL TRAVELERS—INCOME TAX—HOURS OF LABOR.

Consul A. E. Smith, of Victoria, reports that the lieutenant-governor of British Columbia has approved the following laws passed by the Provincial Parliament of British Columbia:

"An act for licensing nonresident commercial travelers or agents for sale of liquors and tobacco," which, as already mentioned, repeals the old law taxing all nonresident commercial travelers, which has been in force for three years past. License is now only required from nonresident commercial travelers who sell liquors and cigars. Fee for same is \$200 per year or \$100 for six months; no license issued for less period than six months.

"An act to amend the assessment act of 1903" provides for a tax on personal incomes based on three-fifths of assessed values. The tax on salmon canneries is placed at 2 cents on each case of salmon packed in each year and 1 per cent on price of salmon not canned. Salmon canneries are assessed at the minimum valuation of \$10,000. The minimum tax on banks in the Province is fixed at \$1,000. Further changes are made in relation to taxation of insurance companies and other real and personal property.

"An act regulating hours of labor in certain industries" refers principally to smelters, which are necessarily run twenty-four hours every day, and prohibits any workman from being employed more than eight hours from midnight to midnight. This act, which has been introduced every session for the past three years, was bitterly fought by the smelter owners, but finally passed.

[Copies of these various new laws are filed for reference at the Bureau of Manufactures.]

INCREASED AMERICAN INVESTMENTS.

Consul Smith also furnishes the following information concerning recent investments by Americans in Vancouver and adjacent islands:

The Graham Steamship, Coal and Lumber Company of Los Angeles, Cal., with a capital of \$10,000,000, has three subsidiary companies, each of which is also incorporated in British Columbia. One of these subsidiary companies secured no less than 102 square miles of valuable timber limits in Graham Island, the most northerly island of Queen Charlotte group, fronting on Masset Inlet, the Aiin and Quan lakes and Yakowa River. In addition it controls a number of leases that bring up the total area of timber lands held to about 75,000 acres. The company is planning to erect on the island a complete settlement, with lumber mills, houses for workmen and officers and their families, yards for building tugs and vessels, etc. In addition to the timber area mentioned, this company has also purchased 30,000 acres of coal land, located in the same island. A large number of men are already at work on the ground, and the party will be further increased in the near future. It is expected that this company will furnish coal and lumber for the Grand Trunk Pacific Railway. Already contracts have been made to supply coal and lumber, which the company expects to transport in their own vessels, to the western terminus of the road at Prince Rupert. It is expected that \$2,000,000

will be expended in the improvements in progress and contemplated. Another subsidiary company has established a lumber mill at Port Renfrew, on the south coast of Vancouver Island, and has also purchased a mill at Victoria. They are now consolidating the two into a large mill on Esquimalt Harbor, where several acres of land have been secured, with two experts from Texas in control. Here the improvements completed and in progress will amount to \$1,000,000.

Another syndicate of American capitalists, known as the Redcliff Lumber Company, are also erecting another large lumber mill near Kyuquot Sound, north of Alberni, and on the west coast of Vancouver Island, and have secured 20,000 acres of timber land to supply the same. Still another American syndicate, members of which have been operating in Minnesota, Michigan, and northern Ontario, have purchased 60,000 acres of timber land on the west coast of Vancouver Island, and are now making preparations to erect two additional lumber mills. These large investments by Americans are of the utmost importance to British Columbia, and have resulted in an advance in the price of timber and coal lands, as well as renewed activity in all branches of trade. American capital is doing a great deal to develop the resources of British Columbia.

HARBOR IMPROVEMENTS AT ST. JOHN.

Consul Gebhard Willrich reports that contracts have been made for the extension of wharves at St. John, New Brunswick. These total 800 feet, and are to be completed by next winter. Other new wharves are in contemplation, one of which will be 650 feet and the other 400 feet in length. The names of contractors for harbor works and divers at St. John are filed for reference at the Bureau of Manufactures. The consul also forwards a copy of a special report of the St. John Board of Trade on future improvements to be made at that port, together with a map of the harbor. These will be loaned to persons interested in the export trade.

INCREASED IMMIGRATION.

Consul Paul Lang, of Sherbrooke, Quebec, reports that according to published returns the immigration into Canada for the eight months ending February 28, 1907, was 95,655, as compared with 65,170 for the same period of the preceding year, an increase of 47 per cent. The arrivals by ocean ports were 67,686, and from the United States 27,969, as compared with 43,014 by ocean ports and 22,156 from the United States for same period of the preceding year. The percentage of increase via ocean ports was 57 per cent and from the United States 23 per cent.

NEW ZEALAND SEEKS TRADE.

The New Zealand government has, according to the London Times, sent a special representative to Canada in order to promote trade between the two countries. After visiting Vancouver, Calgary, Winnipeg, Toronto, and Ottawa he has taken quarters in Montreal, and is carrying on his propaganda among the merchants of the commercial metropolis. He points out that New Zealand last year took goods worth \$7,300,000 from the United States and only \$584,000 worth

from Canada; yet, other things being equal, the New Zealanders would prefer trading with their fellow-citizens in the Dominion. New Zealand, he says, can supply Canada with wool, flax, and gum; and, given the necessary cold storage in steamers, he considers that she could also supply mutton to the cities of western Canada as far east as Winnipeg. As it is, about 5,000 carcasses of mutton are landed in Vancouver by every steamer from Australia.

MEXICO.

COMMERCE OF DURANGO.

EXPORTS TO THE UNITED STATES—TIMBER LANDS—IRRIGATION.

Consul J. A. Le Roy, in his annual report covering the trade of the Durango, Mexico, consular district, says:

The declared exports from this district for the calendar year 1906 amounted to \$2,497,909, exceeding that of any previous year, of which \$491,310 was invoiced at Durango, and \$2,006,599 at the Torreón agency. The shipments of mineral products to the United States totaled \$1,157,639; of vegetable products, \$1,118,966, and of animal products, \$221,012. The figures in detail are shown in the following table:

Articles.	Exports from—		Articles.	Exports from—	
	Durango.	Torreón.		Durango.	Torreón.
Mineral products:			Vegetable products—cont'd.		
Gold.....	\$31,272	\$138,338	Rubber, crude guayule.....		\$917,571
Silver.....	367,210	482,428	All other.....	\$50,007	11,110
Lead.....	47	129,392	Animal products:		
Tin, pig.....	3,972	4,980	Hides, cattle.....	11,146	65,306
Vegetable products:			Skins, goat.....	27,058	116,904
Cotton-seed cake.....		23,979	All other.....	599	
Glycerin, refined.....		116,298	All other articles.....		291

Guayule rubber shipments from Durango first appeared in the returns for 1905, and amounted to \$125,478; in 1906 they reached \$917,571. Mexico is now exporting to the United States more than \$4,000,000 worth of hides and skins annually, and in return buys from the United States \$1,000,000 worth of leather goods. Mexico has never produced good leather. The tanneries of the country are mostly small affairs. The great drawback is the lack of good barks for tanning purposes. The American shoe manufacturers now have almost the entire Mexican import trade, except for certain grades of fine and high-priced shoes sold by French manufacturers.

MARKET FOR SOAPS, BAKING POWDER, ETC.

The cotton belt of this consular district is the center of soap manufacture in Mexico, and one large concern located therein has made enormous profits. Their field is chiefly in the common laundry soaps; yet for the past four years the import of unperfumed soaps from the United States has been increasing, though it has not yet reached the total of 1894, before the local soap industry had been developed. The duty on unperfumed soaps coming into Mexico is 25 cents Mexican per kilo (or about 5.7 cents United States cur-

rency per pound), legal weight. Toilet soaps have not in the past been made to any considerable extent in Mexico, but there has been established at Torreón a factory for this line of manufacture. The competition that American toilet soaps have had to meet in Mexico in the past has chiefly been with those of France; nevertheless, exports of toilet and fancy soaps from the United States to Mexico have gained steadily since 1900, amounting now to about \$30,000 per year. Such soaps are sold at very high prices in Mexico, and are used only by the well to do. The duty on perfumed and medicinal soaps is \$1 Mexican per kilo (about 22.7 cents United States currency per pound), legal weight, which includes wrappers and the small pasteboard boxes in which they are commonly packed.

Another line of trade with Mexico that will repay attention from those interested is that of baking powder. Exports from the United States in this line now run over \$30,000 annually. There is some tendency to adopt new dishes and new ways of cooking in Mexico, and the use of baking powder is growing somewhat, even apart from the increase in the number of Americans in Mexico. The Mexican duty on baking powder is inconsiderable; it is not specifically named in the tariff, but no classification into which it may be placed puts a charge of more than a few cents a pound upon it.

The market for porcelain bath tubs, closets, and plumbers' supplies generally is undoubtedly growing steadily, though no figures are available. When the new waterworks and sewer system begins to be installed in the city of Durango, this place will deserve direct attention from American exporters of these lines of manufactures.

AMERICAN INVESTMENTS—EXTENSION OF IRRIGATION.

Great interest was manifested during 1906 by American land agents and investors in the timbered portions of this State. Not many tracts of value now remain which can be obtained at the former low prices, and virtually no tracts of good timber remain open to denouncement. Still many tracts are on the market for about \$1 gold per acre. Such tracts in this State are to be bought at present only for speculative purposes, as their exploitation depends upon the future extension of transportation facilities.

It is evident that the extension of the area of cultivation through modern irrigation works will in the future be an element in Mexico's internal progress. Such works have been almost totally neglected in this State in the past, except for the canals, etc., built to control and divert the lower currents of the Najas River in the Laguna cotton belt. During the past year a dam costing \$100,000 gold has been finished upon the largest landed estate of Durango. Two other dams are in course of construction, one of which will irrigate upward of 5,000 acres.

PROGRESS OF REPUBLIC.

DEVELOPMENT AND RESOURCES OF THE STATE OF SINALOA.

Consul Louis Kaiser, replying to an inquiry from the United States in regard to the development and natural resources of the Mexican State of Sinaloa, writes from Mazatlan in part as follows:

The State of Sinaloa is very rich in mines and agriculture, and has millions of acres of splendid land for farming and stock raising, and

is well suited for the culture of fibers of different kinds. These lands are nearly all undeveloped and bring from \$1 to \$10 per acre, according to quality and location. Investments of any kind should be made with the utmost caution, and only after a careful personal inspection.

The Southern Pacific Railroad Company has secured from the Mexican Government a subvention of \$750,000 gold, and the company has deposited \$120,000 gold for the fulfillment of their part of the contract to build the Cananea, Yaqui River and Pacific Railroad, which when completed will be 1,000 miles in length. Two sections of the road 200 miles in length are finished and are open for traffic from Empama, Sonora, south to Corral. From Corral the road will run to Valdervain and Buena Vista, and thence to Culiacan, the capital of Sinaloa. The third section extends from Mazatlan to Tepic, and the fourth section from Tepic to Guadalajara, the southern terminus. The rails for the road were bought in Spain, and most of the ties and sleepers in Japan. The contract for grading the entire length was awarded to a well-known firm of Los Angeles, Cal.

The Kansas City, Mexico and Orient Railroad is pushing its road from Topolobampo, a small port on the Gulf of California, and have about 150 miles of the line completed. The contemplated Durango and Mazatlan Railroad, which will be a branch of the International line, and will be about 175 miles long, has finished its surveys, and it is now believed this extension will be built.

The climate on the west coast of Mexico for eight or nine months of the year is all one could desire. The rainy and hot season begins in July and ends the latter part of September.

SANTO DOMINGO.

EXTENDING FOREIGN COMMERCE.

INCREASING TRADE—IMPORTANCE OF THE MARKET TO UNITED STATES.

President Caceres, in his annual message to the National Congress for 1907, refers to the increased foreign commerce of the Dominican Republic, concerning which the customs officials present statistics as follows:

The total value of the foreign trade of the Republic during the calendar year 1906, not including imports and exports of gold, silver, and paper currency, was \$10,601,815, an increase of approximately \$1,000,000 over 1905. The value of the imports was \$4,065,437 and of the exports \$6,536,378, leaving a balance of trade in favor of the Republic of \$2,470,941. The value of the commercial transactions of the Republic with the United States amounted to \$6,252,707; Germany, \$2,923,942; France, \$771,916; United Kingdom, \$572,714; Spain, \$93,732; Italy, \$50,842; Cuba, \$47,751; Porto Rico, \$32,936, and all other countries, \$78,669.

In manufactures of iron and steel the imports were valued at \$474,200, of which \$238,561 worth came from the United States, \$86,789 from Great Britain, \$57,161 from Germany, and \$34,736 from France. Rice was the principal food product imported, amounting to 18,874,116 pounds, valued at \$370,668, an increase of 8,857,000 pounds over the quantity imported in 1905. Germany fur-

nished 15,390,595 pounds of the total importation, while the remainder was divided principally between the United States and Great Britain.

The United States supplied substantially all of the flour imported, consisting of 58,622 barrels, valued at \$250,390, as against 41,172 barrels imported during 1905, at a cost of \$208,968. The United States led in furnishing meat and dairy products, the value of these purchased from that source having been \$117,546, or \$35,512 in excess of that of the previous year. The total value of meat and dairy products amounted to \$226,855, against \$138,195 in 1905. The value of mineral oil imported was \$202,378. The aggregate value of manufactures of leather was \$118,579, of which the United States supplied \$101,833 worth. Most of the wood manufactures came from the United States, that country sending \$95,780 worth out of a total of \$110,925.

VALUABLE EXPORTS.

The principal products exported were sugar, cocoa, tobacco, bananas, coffee, hides and skins, etc. The 123,401,271 pounds of sugar exported, valued at \$2,392,406, nearly all went to the United States, total shipments to that country aggregating 117,491,975 pounds, valued at \$2,291,527. Cocoa beans valued at \$2,262,912, representing shipments of 32,022,460 pounds, were exported, of which 17,502,961 pounds went to Germany, 9,821,512 pounds to the United States, and the remainder to France. The gain in cocoa production for the year was 3,000,000 pounds. The general prices obtained for this product have also been good, netting an average of over \$7 per hundredweight, and advancing until, at the close of the year, it was in good demand for export at \$11 per hundredweight.

The total quantity of tobacco exported amounted to 14,965,799 pounds, valued at \$837,057, of which Germany took 8,946,053 pounds, worth \$528,897; the United States 3,746,162 pounds, valued at \$189,279, and France 2,273,584 pounds, invoiced at \$118,881. Practically all of the 669,100 bunches of bananas shipped and valued at \$334,005 went to the United States. There were 2,916,727 pounds of coffee exported, with a value of \$220,051. Of this, 1,562,193 pounds, valued at \$98,997, went to Germany; 569,215 pounds, worth \$50,030, to France; 564,291 pounds, valued at \$49,556, to the United States, and the remainder, valued at \$21,468, was distributed in small lots among all other countries. The remainder of the total declared value of exports represented shipments of hides and skins worth \$150,440; wax, \$125,599; hard woods, \$27,773; cattle, \$12,359, and many other minor products.

TEXTILES.

COTTON GROWING.

AUSTRALIA.

THE INDUSTRY IS REVIVING IN THE STATE OF QUEENSLAND.

Consul-General John P. Bray, of Melbourne, forwards a newspaper article on the cotton industry of Australia, written by an official of the State of Queensland, who is a recognized authority on the subject. The newspaper introduction to the article reads:

Cotton culture is one of Australia's great possibilities. As the following article makes sufficiently clear, we hold an enormous area of practically unsettled country in which this industry might be conducted to advantage, if once the problem of labor were simplified. To give some idea of what a successfully established cotton industry might mean for us, it is worth noting that while our annual wool clip may be valued roughly at £20,000,000 (£=\$4.86), India exported (1904-5) raw cotton worth £11,623,000, while in 1904 the United States supplied it to the value of about £40,000,000 to the United Kingdom alone. When the colossal requirements of the Far East, to which the author of this article alludes, are remembered, the importance of the whole question becomes at once unmistakable.

The article in condensed form reads:

Foremost among our enterprises will sooner or later be the cultivation of cotton on a scale becoming the importance of the industry. The first effort, it appears, was made in 1860 around Ipswich, 25 miles from Brisbane. For a time the industry was the only one absorbing attention, and indeed the district could at one period boast of over 14,000 acres under cultivation. For about ten years there was a rise in the production; then came a fall. It was in 1870 that the largest area was put under crop, and in the following year the total exports of ginned cotton reached 2,602,100 pounds weight, realizing £79,317, the ruling price being 7½d. (15 cents) per pound. From that year exports gradually declined, and the decline was rapid from 1872 to 1887. The industry has, however, since revived, and at the present time Queensland cotton is being used by Australian manufacturers to a certain extent, the 1905 crop having been ginned at the Government nursery in the north and at the old Ipswich cotton factory in the south.

Naturally, many would wish to know the causes of the cessation in the production referred to. These, briefly expressed, relate chiefly to high cost of transport to English markets, slow delivery owing to the long voyages of sailing ships (we hadn't then the fast and luxurious steamers of to-day), high charges for ginning, etc., and the fact that the seed and its by-products—now of some value—were in very many instances thrown away. Coupled with these disabilities was the inexperience of growers; this, in a minor degree, contributed to the cessation of cotton growing, owing to the absence of care in selection of seed and in arranging the due rotation of crops. Afterwards came also a prejudice against the revival of the industry. As in all industries in Australia, while the unfortunate pioneer, or first comer, fares badly, the experience gained in the past benefits those who follow, and to-day the cotton industry promises to stand on a safe footing.

CARAVONICA FIBER.

The foregoing must be taken as a mere sketch of the early history of cotton growing in Australia, but that the industry is now firmly established may be

judged by the fact that it has spread along the coast of Queensland up to Cape York, where, at Somerset, Mr. Frank Jardine has grown some excellent samples of the Caravonica type. Originated in Doctor Thomatis's plantation, near Cairns, with most satisfactory results, this type is said not to be suitable for the southern climate. Seeing, however, that within the Cape York Peninsula alone it has a field open to it as large as the whole of England, it need not be a matter of much regret if its range of production does not extend below the Tropics. Then we can go west to the Gulf of Carpentaria, to the northern territory of South Australia, and keep west to the Indian Ocean. Over the whole of this vast tract of country there are millions of acres available for the Caravonica or any other class of cotton (where it may be found it will succeed). The only trouble is to find the people to cover such immense areas. It, however, indi-



cates a fairly easy way of solving the problem of settling people on the land, and as there is in the southern states of the commonwealth a large and growing demand for all the fiber which can be grown in the northern parts of Australia, it will be some years before the demand can be overtaken. Mr. Daniel Jones, of the Queensland agricultural department, states in one of his reports that: "It was recently stated by an English expert interested in the textile trade that the chief concern of his Lancashire fellow spinners lay in the prospect that in twenty years or so the rapid increase of American cotton mills would demand all, or nearly all, the American crops for their own needs. Such a factor as this needs emphasizing in order that Queensland might take her right position as a contributor to the world's requirements." He might, indeed, even say that such facts should awaken the whole of the commonwealth to take up the encouragement of an industry which must in time rank next to our wool production.

The bounties bill now before the Federal Parliament (already passed by the House of Representatives) proposes paying the grower 10 per cent on the market value of the raw product (up to annual value of £6,000) for five years, and if brought into force, this should supply a distinct stimulus to the industry.

CROP RETURNS.

With regard to the 1905 crop the Queensland department of agriculture undertook the sale, and were able to return to the growers 6d. (12 cents) per pound for cotton in the seed. The cotton last year—with two exceptions all of the upland varieties—was grown from seed imported from America in 1903. Its cultivation ranges over a wide area—from the Maranoa and Mitchell districts, in the west, to the Central and Atherton districts, in the north; but the best quality comes from the West Moreton district, which includes Ipswich, the old center of cotton growing in Queensland. Experts have pronounced the Queensland upland cotton—many of the fibers possess a staple of from $1\frac{1}{2}$ to $1\frac{3}{4}$ inches—as fully equal to the best American. The returns in the 1905 season averaged, in one instance, £17 per acre for upland cotton, and in others from £6 to £10 per acre. Besides the European market, there is an unlimited one for raw cotton in China and Japan, the latter country importing about £500,000 worth of raw cotton annually to supply her mills.

Perhaps it is not generally known that cotton, of a wild kind, is indigenous to most parts of Australia. To my own knowledge it grows in central Queensland, in the country of the Gulf of Carpentaria, and in the northern territory of South Australia; but it is of no commercial value so far. It would have afforded me much pleasure to have been able to write of other States, outside of Queensland, having taken a hand in an industry demanding neither a large capital for cultivation nor a great deal of agricultural skill, but I am sorry to say that I can not find that any effort, however feeble, has been made. The northern territory of South Australia, which contains millions of acres admirably adapted for almost all the varieties of cotton, does not seem to have done much beyond raising cattle and sheep, while its Chinese population grows vegetables.

YIELD OF A TREE—SUCCESS IN CUBA.

Mr. Bray also forwarded from Melbourne photographs of the "Caravonica" cotton tree, grown by Dr. David Thomatis, of Cairns, in the State of Queensland. One of these is reproduced herewith, the others being on file at the Bureau of Manufactures. Mr. Bray sends the following additional comments:

A "Caravonica" cotton tree (shown in one of the filed photographs), grown by Archdeacon Campbell at the back of the rectory at Cairns in almost pure sea sand, is twelve months old, and from August, 1905, to December, 1906, it yielded 12 pounds of bolls.

An interesting letter, dated November 10, 1906, has been received by Doctor Thomatis from Mr. W. H. Bennis, Baracoa plantation, Cuba, stating that trees of Caravonica cotton grew from seed sent by Doctor Thomatis to the height of $7\frac{1}{2}$ feet with 4 feet of spread in forty-four days, which means thirty-four days of growth, as ten days are required for germination. The writer also stated that the trees had over 60 blossoms on and have created great interest in the island. This phenomenal and luxurious growth in Cuba of the Caravonica cotton is said also to be met with in Ceylon, where it grew 15 feet in three months. I am sending sample bolls of Caravonica wool, Caravonica silk, and of ginned lint. [They may be inspected at the Bureau of Manufactures.]

AFRICA.

CULTIVATION OF THE FIBER IN THE GERMAN COLONIES.

Consul William C. Teichmann, of Eibenstock, transmits the following information concerning the efforts now being put forth by Germany to grow cotton in African colonies:

The "Kolonialwirtschaftliches Komitee," with representatives of the leading German cotton-manufacturing interests and of the German foreign office bureau, recently discussed the problem and methods and the results achieved thus far. The principal object of this meeting was the raising of large funds for cotton cultivation, which is to be accomplished by inducing members of all interested trade and commercial bodies to contribute annually for 1907, 1908, and 1909 for this purpose each an amount equivalent to 10 per cent of their annual contributions to their respective organizations. This financial assistance from private sources renders available an appropriation recently granted by the Reichstag for cotton cultivation in the colonies amounting to an initial help of 50,000 marks (\$11,900). Indirectly the colonial department has already given 105,000 marks (\$24,190) to the Kolonialwirtschaftliches Komitee for 1907 toward the cultivation of cotton in Africa.

For years this committee has carried on extensive experiments in the colonies, which have gradually won the confidence of the Government and of interested parties in Germany to a degree arousing the most sanguine expectations of future independence of the American market.

The report of the "komitee" points to the encouraging results achieved in Togo, while in German East Africa, notwithstanding the insurrection, the crop of 1906-7 amounted to 1,000,000 pounds. The report also gives information regarding the efforts of the colonists in the several possessions in overcoming difficulties, labor problems, and climatic conditions. In the Kamerun colony cotton cultivation is impossible in the forest and oil-palm zones and in the rainy coast region, but on the highlands excellent results can be reached. In Adamanaland, as far as Tschadland, cotton is cultivated by the natives, the product being worked up for their own use. The territory opened up by the Usambara Railway is said to be well adapted to the growing of cotton because of its possible irrigation.

According to the report of a commissioner sent thither, the Lake Victoria territory soil is somewhat like the Delta of the Nile, and should produce cotton of the Egyptian variety in perfect quality. In many other sections of German Africa cotton could be successfully grown, provided the irrigation problem could be satisfactorily solved. The "komitee" will send an experienced planter from German Southwest Africa to Nebraska to study the so-called "Campbell system," by which rapid evaporation can be retarded.

TURKEY.

PROSPECTS OF THE INDUSTRY IN THE VILAYET OF ADANA.

Vice-Consul William Smith-Lyte, of Constantinople, furnishes the following report on the cultivation of cotton in the Levant:

The articles providing for the construction of the Baghdad railway give to the company a tract of land along the line to the extent of

12.4 miles wide, i. e., 6.2 miles on each side. The company has the right to cultivate this land and to work the forests and the mines within this radius. The construction of the line in the Adana district is not yet started, but the French consul at Adana, in a recent report on the subject, states as follows:

A company has been formed under the patronage of the Deutsche Bank and of the Deutsche Levante Linie for the cultivation of those grounds, with the title of the Deutsche Levantische Baumvolle Gesellschaft (German Levant Cotton Company). By the title it is understood that the aim of this new company is the cultivation of cotton in the Levant, or, to be more explicit, in the region through which the railway line passes. The Germans have thus resolved in a moment an important question. The Germans, knowing that the fertile plains of Adana produce cotton, have formed the company, which sent a technical commission to study the possibilities of these lands and examine the prospects of developing this industry.

The result of this examination having been very favorable, the company at once set to work, and have been treating for the purchase of a large property, the deeds of which, however, have not yet been transferred. Pending the right to cultivate the land conceded to the railway company along its lines, the company has established a depot in Adana for the purchase of cotton, and, to encourage its culture by giving every possible facility to the small farmers, is offering them on very advantageous terms improved seed, which it imports from America. The cotton bought is shipped to Hamburg to a large German weaving house interested in the company, who have already established in Adana a plant with presses and improved machinery, the whole lighted by electricity.

The province of Adana was also visited during the early months of this year by a number of German persons, such as engineers, large merchants, and manufacturers, including a member of the German embassy at Constantinople, who made a long stay at Mersina, where he collected considerable information in regard to imports. Not that he was not already aware of the extent and the origin of these imports, but he wished to examine on the spot the local preferences for the different kinds of articles imported. He made a special study of iron, sheet iron, and copper, which are imported principally from Austria.

ARGENTINA.

MISLEADING STATEMENTS CORRECTED—AMALGAMATION OF COMPANIES.

Consul-General A. G. Snyder, of Buenos Aires, furnishes the following correction in regard to the reported failure of the cotton crop in Argentina:

A letter written to one of the local papers to correct certain misleading statements in which it was pointed out that last year's cotton crop was a failure states that such was not the case, for while the quantity exported was very small, the local consumption was in excess of the previous year, and for this reason the amount available for export was considerably less. Cotton spinning in Argentina had only started in 1905, and although machinery had been erected there was no actual output, whereas in 1906 the amount of clean cotton bought by the Algodonera Nacional alone and consumed at their spinning factory in Baracas was 230 tons. All this would have been exported to Liverpool had this factory not been in existence, and, moreover, the Anglo Argentina Cotton Company, which was the main exporting company, placed the large part of their supply with this company.

He further states that the outlook this year is very favorable, for the three chief companies have amalgamated, and with their combined facilities will be able to do a large business, besides being re-

lieved from last year's severe competition. The cultivated are in the Chaco this year is less than last year, but it is thought that the crop will be a great deal larger, as the year has been very favorable. There are about 4,942 acres in cotton, and the production in cotton and seed should be about 3,000 tons, or 900 tons of clean cotton, more or less.

CONSUMPTION OUTLOOK.

NEW MILLS CAUSE AN INCREASED CONSUMPTION.

The following information concerning the estimated increased consumption of cotton in 1907 and the causes for such increase is furnished by Consul William Harrison Bradley, of Manchester:

The latest figures as to the number of new mills built since 1905, and their capacity, has just come to hand. They give 99 new mills, having a capacity of 8,865,968 spindles. These mills are nearly all working, or will be working this year, and add an item toward the question of the cotton market for the coming season. The crop of 1905 from all the world was about 17,782,440 bales, divided as follows: United States, 13,420,440; East Indies, 2,960,000; Egypt, 1,187,000; Brazil, 215,000, with other smaller lots. The consumption of the crop for 1905 was about 15,506,255 bales.

The manufacturing trade has grown during the last year. It is still difficult to get from the English mills deliveries of yarn. Twelve spindles consume a bale of cotton a year, on the average, in the United Kingdom. The new mills would, at this rate, add a consumption of, say, 730,000 bales, or an addition to the consumption of 1905 of 20 per cent. All countries producing cotton fabrics seem to have been prosperous, and for the past eighteen months British shipments of textile machinery to such countries have been increasing, besides what they may have built themselves. Under these circumstances, it would not seem excessive to add 20 per cent to the general consumption of raw cotton, or, say, 3,101,230 bales, which, added to the great total of 1905 of 15,506,255 bales, would give 18,607,485 bales as the possible consumption for the year 1907.

The large crop of 1904-5 was 17,782,440 bales; supposing the present year's supply to be the same, we should have a deficit of 825,048 bales. As yet no great amount of cotton is produced in any new centers. Egypt may give a slightly increased yield, but India, I believe, will show a diminished product. It looks, then, as if—should the present market for cotton yarn and piece goods hold, which seems probable—that American cotton planters need not fear a much reduced price for their staple.

MODIFICATION OF SELLING CONTRACTS.

A meeting was held in London a few days since of the committee of the International Master Cotton Spinners and Manufacturers' Association, appointed at the meeting of the association held at Bremen, Germany, in June last to consider further means of modifying the selling contracts of bale cotton, in order to obtain what the buyers consider a fairer percentage of allowance for tare. The matter from the spinners' standpoint is that years ago, when the bale of cotton weighed, say, 350 pounds, it was approximately the same size

as to-day and required the same amount of sacking and the same number of ties. This amounted to about 21 pounds, or 6 per cent allowance on the weight of the bale. Gradually, as arrangements for pressing improved, the bale grew, and the allowance for tare has remained the same, necessitating the addition, it is claimed, of extra jute patches as well as extra bands, which cost, say, 3 cents per pound to bring up the weight of tare to the percentage as allowed by the old form of contract.

In this way the spinner pays the price of good cotton for something only worth less than half that amount—from 5 to 8 cents per pound—on, say, 8 or 9 pounds, which does not seem much, unless we recall the fact that several million bales are involved, when it can be seen that the amount lost to the spinner in this way, between the planter who reaps no benefit from it and the user, is considerable.

The committee, in sympathy with the American spinners, are trying to arrange with the exchanges of the different European ports to make a definite allowance for tare instead of a percentage. This allowance has been figured at from 21 to 24 cents, the latter being the outside limit, all over that to be charged back to the middlemen.

COTTON GOODS TRADE.

MANCHESTER.

DECREASE IN THE EXPORTS OF COTTON FABRICS.

Consul W. H. Bradley, of Manchester, reporting on the quantity of textile fabrics held by Shanghai merchants, exports of British textile machinery, and the local board of trade cotton returns, says:

The Shanghai merchants have completed their stock returns, which gives the amount held on January 1, 1907, as compared with the three previous years, as follows:

Description.	1904.	1905.	1906.	1907.
Gray shirtings and T-cloths	pieces.. 1,500	740	3,200	3,260
White shirtings and Irishes	820	640	1,770	2,082
Drills	56	245	910	1,358
Jeans	46	27	458	460
Sheetings	do. 1,480	380	2,700	4,412
Dyed and printed goods	do. 1,350	1,150	1,975	1,215
Yarn	a piculs. 283	181	435	686
Cotton flannels	pieces. 77	223	473	201
Cotton lastings and Italians	do. 470	560	1,250	1,361

a Picul = 133½ pounds.

The amount of stock on hand would indicate that it will be a long time before Shanghai will be a depleted market.

The value of the British exports of textile machinery during the month of February amounted to \$2,586,180, as against \$2,536,571 for the corresponding month of last year, and \$1,700,783 for February, 1905. India and the minor textile manufacturing countries of Europe have continued to be the chief customers for spindles and looms. The exports to Germany show a decrease, but France is an increasing

buyer, and the shipments to China, though indicating progress in the textile industries of that Empire, are relatively small. The United States demand continues to show notable revival.

The principal countries purchasing this class of machinery during the month of February were: Russia, \$145,275 worth; Germany, \$287,250; Netherlands, \$52,592; France, \$297,168; other countries in Europe, \$569,419; China, including Hongkong, \$29,647; Japan, \$84,482; United States, \$265,565; South America, \$150,462; British India, \$609,967; and Australia, \$8,429. The declared value of the textile machinery exported during January and February was \$5,643,568, against \$5,128,434 for the first two months of 1906 and \$3,474,116 for the corresponding period of 1905.

COTTON TRADE DIFFICULTIES.

In regard to the board of trade cotton returns, a correspondent of a local newspaper says:

Never since the inauguration of limited liability have the spinning mills of Lancashire had such an enormous stock of cotton at the works, so that whenever they choose to adopt what is called a waiting policy it will have such a cold effect upon the holders of cotton that they will begin to feel uneasy as to what they will get for their cotton if by chance they have to hold it into next season. What is called the great spring trade of the year is nearly over, and whatever may be the general employment in Great Britain it can not be said that the home trade, so far as the distribution of cotton fabrics is concerned, has been at all booming, and as regards both India and China the exports are not encouraging when contrasted with either 1905 or 1906. In 1905 it seemed possible, and even probable, that India and China would rapidly develop into giving us an extra demand of 50,000,000 yards per month. An obstacle to this has been the extravagant price of cotton and yarn. It is not a pleasant observation to perceive that the export of spinning and weaving machinery to India has had such a large increase while our sales are stationary. It is to the interest of Lancashire to be more united in a steadied resistance to the present prices of cotton, which would only have been justified by a small crop.

The exports of cotton manufactures during the six months ending February, 1907, show a decrease of 129,343,400 yards. This is a very serious factor for the consideration of Lancashire, and is palpable evidence that it will be very difficult to overtake this deficiency during the next six months. Instead of deficient exports, it is certain Lancashire needs increased exports of manufactures, as the number of looms has so much increased during the last two years. The position of manufacturing will become grave if we do not take timely heed of the dangers ahead. The supposed boom has been exploited for more than it is worth by all sorts of incomplete and misleading statements, gross exaggeration, and worthless reports from interested people in England as well as in America, who are waiting to unload at high prices, and against whom we ought to be watchful and beware.

COTTON-SPINNING PROFITS.

A Manchester correspondent of a London journal states that the first three months of this year has been one of the most prosperous periods ever experienced by cotton-spinning companies in Lancashire. The results of the stock takings of various companies show that large gains have been made. A number of concerns do not issue balance sheets, but where figures are available the profit works out at about

35 per cent per annum on the share capital. In most cases the dividend paid is at the rate of 10 per cent per annum. Large sums, however, have been written off for depreciation and reserve funds are steadily increasing. On the whole the position of spinners is well maintained, and the margin of profit between the raw cotton and the finished yarn is remunerative.

TRINIDAD.

WHY BRITISH FABRICS ARE MOST IN DEMAND.

According to Consul W. W. Handley the large sales of English cotton fabrics in Trinidad is due principally to the following reasons:

First, the more intimate business relations existing up to the present time between this island and England than between here and the United States; second, because it is claimed England manufactures a larger variety and range of cloths than America; third, because the consumers in this island are conservative in disposition and prefer to continue using a somewhat inferior article to making a change in their habits. The low grades of American cotton goods imported here are pure in finish, while nearly all English goods have a considerable amount of filling. Without doubt in the long run the pure article will be preferred, but up to the present the majority of the people prefer a thick-feeling cotton even when they know that the thickness consists principally of chemical filling. The high grade English-made long cloths compete successfully with our manufactures in make, finish, and price.

The white cotton widths mostly in demand here are 30 to 35 inches; prints, 28 and 29; drills, 26; trouser ducks and denims, 28 to 30 inches. Our duck and sail cloth are largely used and compare favorably in price with the English. A large quantity of the lighter duck, such as "Stark Mill," is used for making workingmen's trousers. Denims and dungarees are also largely imported, both in piece and made-up goods. These cloths are a bit superior in finish to the English article, but their prices are about the same. There is a large and increasing demand here for American khaki drills and white drills of a similar make of khaki. English drills of the same class cost considerably more than the American article.

The time required for payment varies from cash with order to six months' credit. Generally speaking cash on receipt of goods is convenient to most of the importers. The population of this island is something under 400,000, and consists of almost every nationality in the world. Of this number about 75,000 are East Indians (coolies), whose entire dress consist of three or four yards of cheap cotton cloth, of different varieties, artistically twisted about their bodies. A dry goods departmental store has, therefore, to carry a small quantity each of a large variety of cotton goods, to suit all tastes, and the Trinidad importer declares this variety is more easily obtainable, generally speaking, in England than in the United States, which, he thinks, specializes more and manufactures only standard lines in very large quantities. [A list of Trinidad's importers of cotton goods is filed at the Bureau of Manufactures.]

URUGUAY.

IMPORTATION OF TEXTILE FABRICS.

Consul John W. O'Hara makes the following report from Montevideo on the textile trade:

There were imported into Uruguay in 1905 dry goods and textiles amounting to \$4,299,539, of which cotton and woolen cassimeres (not given separately) amounted to \$990,539, leaving the net amount, excluding cassimeres, at \$3,319,000. Cotton dress goods are largely used in this country. The patterns are usually neat and the colors light. These goods are imported from England, Italy, and France, and French styles prevail. The muslins, sheetings, and heavier cottons are imported from England, France, and the United States. One house makes a specialty of American goods. The retail selling prices for cotton goods range from 50 to 150 per cent higher here than in the United States. At the custom-house all cotton dress goods are valued at 16 cents per meter (39.4 inches), and on this valuation the tariff is from 31 to 48½ per cent, so that the cheaper cottons are smothered in custom-house charges. [A list of importers of cotton goods at Montevideo is forwarded by the consul.] Correspondence and printed matter should be in Spanish and weights and measures expressed in the metric system.

STRAITS SETTLEMENTS.

BRITISH SALES INCREASE, WHILE AMERICAN SALES DECREASE.

Regarding importation of cotton fabrics at Singapore, Consul-General D. F. Wilber writes:

In 1905, 4,750,000 pieces of cotton goods were imported, made up as follows: 3,100,000 pieces of plaid cotton, 967,000 pieces of dyed cotton, and 683,000 of printed sorts. The United Kingdom furnished over 4,000,000 pieces of all kinds of the total amount imported, valued at \$7,100,000, the Continent of Europe over 441,000 pieces, valued at \$800,000. From the United States direct only 3,000 pieces were received, a decrease of one-third from 1904. [The British sales of piece goods in the Straits Settlements increased from 100,230,200 yards in the calendar year 1904 to 121,670,400 yards in 1905 and to 131,212,300 in 1906.—B. of M.]

The experience of all those who endeavor to sell cotton goods in this part of the world is the plain fact that American manufacturers will not meet requirements either in lengths, widths desired, or in packing, which includes, among other things, cases of assorted patterns. Neither have they been willing or able to meet the prices of the United Kingdom or the European Continent. If our manufacturers expect to sell cotton goods in this market, they must meet requirements in every particular. The natives' demands seem trifling to us, yet they will not buy unless those demands are fully met.

AUSTRALIA.

IMPORTS OF DRY GOODS FROM ENGLAND.

Consul-General J. P. Bray, of Melbourne, reports that the imports of dry goods into Australia from England during 1906 show an increase of \$4,007,087 over the previous year, the total value under ten leading heads being \$26,360,842 against \$22,353,755 for 1905.

Cotton goods accounted for about half of the increase, the quantity increasing from 136,475,800 yards in 1905 to 154,993,600 yards in 1906; woolens, from 4,873,700 to 6,684,200 yards; worsteds, from 7,162,400 to 7,983,500 yards; linen piece goods, from 10,119,900 to 10,804,800 yards; jute piece goods, from 2,653,400 to 4,431,200 yards; haberdashery and millinery, from \$1,247,790 to \$1,292,095; carpets, from 939,400 to 1,006,600 yards, and silk broad stuffs, from \$750,668 to \$1,038,121. In apparel, waterproof fell from \$67,984 to \$44,640 in 1906, but other description increased from \$3,048,005 to \$3,587,680.

ARTIFICIAL SILK.

METHODS OF MANUFACTURE—COMPARATIVE USES AND PRICES.

Special Agent William Whittam, jr., furnishes the following interesting report on the manufacture of artificial silk in England, which was forwarded from Manchester.

The process of manufacturing artificial silk made from wood pulp is one which in Europe is jealously guarded from inspection. The product is intended to supply the trade with a yarn which will take the place of the product of the silk worm. It is recognized, however, even by the makers of the imitation silk that its use has limitations. Its fabrication into cloth without the admixture of other fibers is not recommended, but rather distinctly discouraged by at least one "mock" silk spinner. On the other hand, it is coming into popularity as the material for both transverse and longitudinal stripes and small figured effects in cloths, the body of which is composed of either cotton, wool, or worsted.

Obviously, the aim of the inventors of the several processes is to produce a thread resembling real silk as closely as possible in appearance, feel, and wearing qualities. Up to the present a product possessing the two first-named characteristics, but deficient in the latter attribute, seems to have been arrived at. Naturally, then, the price at which the artificial yarn can be marketed must be less than that which the real and well-established silk commands. At this time imitation silk sells for considerably less than real silk, but at a higher price than mercerized cotton, and the exploiters of the patent processes are looking forward to the time when their yarns will have a settled position in the textile trade between silk and the best qualities of mercerized cotton yarns.

PROCESSES EMPLOYED.

Two processes are employed—one in which alcohol is used as dissolving agent of the wood pulp, while in the other process a caustic

solution is employed. It is with the caustic or "viscose" process I shall deal in this report. I am told that the United States is the best market for these yarns, and as the trade is as yet in its infancy we have an opening for the establishment of a new industry. So far as I have been able to find there is but little of this stuff made in America, and as the base patents have not long to run the industry should at least compel the investigation of the users at home. My information is that something approaching \$250,000 was paid for the British patents, and that, although the concern working them has invested over half a million dollars in plant, etc., they expect their works will represent an investment of \$1,250,000 within the coming year or two.

RAW MATERIAL AND CONVERSION.

The raw material comes from Norway in the form of baled sheets, each sheet being about 4 feet square. Its price fluctuates from time to time, but 4 pence (8 cents) a pound may be taken as the average cost. After the pulp has been dissolved into a liquid of the required consistency it is forced through a series of microscopic holes, four one-thousandths of an inch in diameter, punched through a thin platinum plate. A "setting" bath (acid) then fixes the filaments so that they can be twisted together to form a workable thread. Usually either 16 or 32 of these capillary filaments go to form what may be termed the "single" yarn. The spinning spindle, which is a weighty affair of some 90 ounces, is gear-driven at 5,000 revolutions a minute, and carries a "cup" into which the yarn is collected in the form of a small "cheese." There will shortly be introduced an improved spindle weighing but 30 ounces, which it is expected can be successfully driven at the rate of 9,000 revolutions per minute. A later arrangement for feeding the "viscose" through the microscopic holes enables a varying pressure to be exerted on the liquid, and by this contrivance different counts of yarn can be made than could be conveniently produced by the older arrangement of increasing or decreasing the number of component filaments in the finished thread.

Aside from the apparatus for treating the pulp prior to spinning, the spinning machines are in themselves costly, the present price per spindle being \$25, the average production per spindle being 100 meters per minute of a thread having $2\frac{1}{2}$ turns of twist to the inch. I learn that, so far as British experience is concerned, the development of the work has been most expensive. Starting with the accumulated knowledge of the continental producers has not prevented comparatively enormous sums being expended in simplifying complicated, though somewhat crude, mechanism and simplifying chemical processes and standardizing the quantities and qualities of the ingredients employed.

The single yarn, bleached and dyed, is put up in three qualities, A, B, and C, and is sold in the hank at \$1.20, \$1.32, and \$1.44 per pound, the cost to the manufacturer of the artificial yarn averaging 75 cents per pound. I inquired as to the division of cost and was told that one-third went for raw material and chemicals, one-third for labor, supplies, power, etc., and that one-third covered interest, depreciation, selling and other general expenses.

Although the English product is as yet limited in volume, an attempt is being made to distribute the output through the greatest number of channels in order to create a demand for the greater weight of yarns to be made by the rapidly increasing number of spindles. Many makers of fancy cotton goods, who sell part of their output in the American market, are and have been for some time using artificial silk for stripes and figures.

The firms working the "viscose" patents in the several countries in Europe have the markets in which they may sell their yarns defined by agreement, to reduce competition. They also have an arrangement by which any improvement in processes made in one factory is communicated to every other firm in the "cartel."

To enable one to judge of the material and compare it with its rival, mercerized cotton, I am sending to the Bureau of Manufactures a number of samples of both yarns. The prices given on the samples are of course those ruling in England at this writing, March 30. Before the true intrinsic value of artificial silk as a textile material can be arrived at, any disadvantage it has must be known. It is much heavier than real silk, and therefore more pounds will be needed to supply any given length. It is more or less seriously affected by water and moisture and is very inflammable, and both the strength and elasticity of the material falls far below that of the real article. At the same time its brilliancy and luster is superior to mercerized cotton. With all its comparatively weak characteristics, I suggest that it will ultimately compete with cotton and with silk yarns made from waste silk, if its use is confined to the mixture with other textiles in the manner I have indicated.

WOOL TRADE.

BRADFORD.

DECREASING EXPORTS TO THE UNITED STATES—PIECE GOODS IN DEMAND.

Vice-Consul T. L. Renton reviews the woolen industry of Bradford, England, in the following statement:

This district is noted as being the largest consuming center in the world for wool. Bradford has a most interesting history, and it may be safely said that its business men were never more alive in the wool section of the textile industry than they are to-day. As in most other raw commodities, there are men here who like to force a pace and at times do unnatural things. Bradford suffered more in 1906 from this line of action than from every other known source, and if the law of supply and demand had not been interfered with it is safe to say that dealers would not have suffered as they have. From January to the end of May wool values marked a steady advance, and this is all the more remarkable when supplies were increasing month after month. From May to June is the time of the year when top makers, spinners, and manufacturers find supplies the most plentiful, the trade having to encounter the largest quantity of raw material arriving from Australasia, South Africa, and the River Plata.

Notwithstanding this, prices for every quality continued to advance, until at the end of May quotations reached the highest point, the market afterwards receding.

REVIVAL IN WOOL DEMAND.

This proved to be a good and lucrative time to the entire wool trade, for everything bought met a ready sale at improving rates. By June the trade began to look forward to another promised 250,000 to 300,000 bales increase from Australia for the season 1906-7, this being sufficient to cause every user to cease anticipating his requirements. The trade practically adopted a policy of going strictly from hand to mouth and buying nothing in anticipation whatever. This led to very slack markets, values beginning to fall. In July "bearing" operations began, importers and top makers commencing to sell forward "tops" for January, 1907, and later delivery at 2 to 4 cents per pound less than what were then current quotations. Of late years this class of business has certainly grown, a goodly number of Bradford wool houses sending out their own representatives to Australia, New Zealand, and Buenos Aires. This selling forward increased in volume until about November 6, the price of a good super 60s top then having fallen 7 cents per pound and 40s tops 8 cents per pound. On November 8 spinners who had likewise been induced to sell forward yarns came into the market to buy, a strong covering movement commencing on this date, prices for crossbreds in one day advancing 2 cents per pound and in one week 3 to 4 cents per pound. Ever since then a big volume of trade has been done, prices likewise continuing to slightly harden.

SHIPMENTS TO THE UNITED STATES.

The course of English wools has been pretty much of the same order as colonial qualities, but here the want of American purchases has been felt. During the past few years increasing quantities of domestic wools have been sent through this consulate to the United States, but last year there was a considerable falling off compared with the shipments in 1905. The exports of wool from the Bradford consular district were very high in 1905, the figures being the largest since the free-wool tariff days of 1897. The slight reaction of last year was but a natural one, and those engaged in the business here are anticipating a return this year to the monthly totals of 1905. The exports of wool from this district during the past three years are worth more than passing attention. Notwithstanding an import duty of 11 cents per pound, the fact is significant that the exports for the past three years are larger in the aggregate than during the free-wool years of the Wilson tariff. During the three years 1895 to 1897, inclusive, when there was no duty on wool, the exports to the United States amounted to \$13,131,984, while from 1904 to 1906, inclusive, when the duty was 11 cents per pound, the shipments to the United States were valued at \$13,751,556. The exports in 1906 amounted to \$4,384,307, against \$5,362,626 in 1905.

Yarn spinners generally have experienced a fairly busy year, but complaints have been bitter as to the amount of profit made. If a spinner had not bought forward when the year opened, he was certainly in a poor way for making profit. At no time has there been a satisfactory margin between the cost of the top and the sale price

of the yarn. With the decline in the raw material from the beginning of June to the beginning of November a very different time was experienced. Bradford still does a very large export trade with the Continent in yarns, and last year was most satisfactory. Some spinners have done very well, especially those spinning fine crossbred mixture yarns. What is known as the colored trade has been largely developed during the past few years, and this department is well worth cultivating by American worsted spinners.

Mohair spinners have been very busy all through the year, Russia having proved to be a good market for mohair yarns. With improved conditions in Russia it is anticipated that Bradford would do a large trade with that country. Exporting houses sold forward in October to continental buyers in a very extensive way, placing very large contracts, mostly in crossbred qualities. It is said with considerable authority that Bradford spinners have six months' work in hand, all frames being busier now than for many years back.

INCREASED DEMAND FOR PIECE GOODS.

Manufacturers of piece goods have had an increased demand on export account; otherwise Bradford would have been extremely quiet. What are essentially known as "stuff goods" have not been in the least popular, the home trade being very disappointing to the Bradford manufacturer. Dear wool is no doubt militating against Bradford dress goods becoming popular, and it is surprising how greatly cotton dress goods and cotton fabrics generally have grown in favor within the last few years. The English woman in general has recently taken to the wearing of warm underclothing, the result being that she can afford to be a little more independent in her choice of the class of materials she wears on the outside. Cheap woollen tweeds made in the outlying districts have been very popular.

Mohair dress goods, which were largely bought a few years back by American importing houses, have fallen off considerably, stuff goods last year showing a decrease of no less than \$1,671,845 compared with the shipments in 1905. Nothing very marked can be noted in the fabrics which Bradford manufacturers are at present turning out, and with an average equipment American mills could make successfully the same class of goods. Mohairs, or luster goods, which Bradford has long been hoping would sell freely, do not seem to take, though some splendid fabrics are being made both in plains and figures. Cotton linings and dress goods continue to be shipped in very large quantities throughout the world, the finishing of these goods having reached a high state of perfection in the hands of the Bradford Dyers' Association.

Mohair in the raw state has continued to show a fair degree of activity, the export last year to America being the highest for many years back. Compared with 1905 the increase was no less than \$105,827, the total amount being \$173,247. The quality shipped is the best.

NEW INVENTIONS.

American mill owners are purchasing new machinery in England very extensively. A new wool-combing machine has just been placed upon the market, an expert speaking in very high terms of its capac-

ity, as it far surpasses the old Noble comb. The advantages claimed for this machine are, first, the easier running of the comb; second, the vibration hitherto caused by the dabbing brushes is considerably less; third, there is a great reduction of wear and tear in dabbing brushes and leathers; fourth, the changing circles are much more easily made when this is necessary, owing to a change in the type of wool; fifth, higher speeds for the dabbing brushes, therefore allowing higher speeds of the circles, with a consequent greater production. The inventors are practical Bradford machinists.

Considerable interest has been manifested in what is known as the "Youla" process for treating vegetable matter in wool. The object of this new invention is to remove vegetable matter in wool without resorting to the application of chemicals. All practical woolmen know that when wool is "extracted" or "carbonized" the tendency is to weaken the staple of the fiber, wool having been so dealt with frequently handling harsh. The "Youla" process entirely dispenses with this method of extracting, and while perhaps it fails to eliminate all burs from wool, yet seeds and the like are entirely removed. A mill is successfully working in this district, while in Roubaix it has also created quite a sensation. The inventor hopes in time to treat any parcel of wool, no matter how burry or seedy, and as far as it has gone it has proved successful. In the treatment of noils perhaps the tendency is to roll them and make them a little "neppy," but in wool, waste, etc., users here are satisfied with the ability of the machine.

BELGIUM.

MANUFACTURES OF CARDED WOOLEN THREAD ARE QUITE ACTIVE.

In stating that the carded thread industry of Verviers in 1906 was exceptionally good up to the last quarter, when the lockout caused an interruption in the production, Consul J. C. McNally, of Liege, reports:

Had this unfortunate condition not intervened 1906 would have been almost a banner year in the history of this Belgian industry. Since resuming operations the manufacturers and employees alike have been feverishly active, the former to build up the usual reserve stock and to readily meet the pressing demands of their clients, the latter to compensate for the loss in wages during the stoppage. The demand during 1906 was more stable than in the previous year, which was recorded as exceptionally good.

The prospects for the present year, while in a sense satisfactory, will not meet the profitable production of last year. However, it is thought that the low price of carded articles as compared with the combed will keep up the demand. A pessimistic view is maintained by reason of the continued high price of raw materials and of all manufactured articles. The continuance of this condition will inevitably cut the production. Those in authority advise the manufacturers of carded articles to study with prudence the future of this industry. The exportation of carded woollen thread to Great Britain during the months of January and February of the present year was 668,226 pounds to England and 961,543 pounds to Scotland.

CLOTH FROM PAPER.

VALUABLE INVENTION—NEW MATERIAL FOR TEXTILES.

Several months ago there appeared in American trade papers a brief description, taken from a German newspaper, of the appearance of garments for men and women the principal constituent of which was paper. At the request of the Department of Commerce and Labor, American consular officers in Saxony, in which section of the German Empire the paper fabrics were located, were instructed by the Department of State to inquire into the correctness of the reported discovery. In response the following report has been furnished by Consul Carl Bailey Hurst, of Plauen, who also furnished the Bureau of Manufactures with samples of the paper textiles:

To the ingenuity of a well-known Saxon inventor and manufacturer, Herr Emil Clavier, is due the production of a paper yarn, termed "Xylolin," that has been successfully used in a wide range of textile fabrics. The utilization of paper wood fiber in this new and practical way and the extreme cheapness of the new material compared with other yarns now in use is really a remarkable achievement. It should be said that this is not a haphazard discovery, but rather the logical result of years of painstaking study and experimentation. After the final development of the theory at first in mind into tangible material for all manner of uses in textile industries, the paper thread and yarn, loose or tightly spun, of all thicknesses, have since been woven into almost every conceivable fabric and tested and retested, until the invention has become an important commercial success. The paper yarn has extraordinary wearing properties, and as the full scope of its usefulness has probably not been determined, it will, in all likelihood, lend itself to other purposes yet to be discovered.

METHODS OF MANUFACTURE.

It should be understood that xylolin is wood fiber spun into a paper thread or yarn, and may be woven into any desired fabric. Although of the same material as paper, xylolin is not used in sheets and has nothing whatever of the nature of papier-maché or any substance such as may be molded or cut in blocks. It is primarily a thread or yarn and is employed exclusively in weaving. The looms used in the manufacture of most textiles do not have to be especially constructed for this substance; although they may have to be slightly adapted for its readier manipulation. A carpet loom of almost any kind can employ this new yarn. A loom that is used for weaving linen or cotton fabrics of fine or loose mesh can readily take the finer kinds of the paper thread. The thread is not brittle, it does not have a hard surface, and it neither shrinks nor stretches to any appreciable extent. Having certain resilient qualities, it can not be readily crushed or dented like paper, and on it moisture has practically no effect. It is a serviceable substitute for cotton, jute, linen, and even silk. When bleached the yarn or thread is of a snowy whiteness, and at a first glance can not be distinguished from cotton. It can be woven to appear as homespun linen. It combines the good qualities of

cotton and linen at one-third of the price of cotton and one-tenth of the price of linen.

MORE READILY DYED THAN COTTON OR LINEN.

Being paper, it can be more readily dyed in delicate shades, far outmatching the range of colors to which cotton or silks are susceptible and vastly more than those of linens. The process of dyeing the thread or yarn is patented, and appears to be of such perfection that no colors, from the daintiest nuances to the richest hues, are affected by strong light. If it should be the wish of a manufacturer to combine the paper thread or yarn with other materials to gain the cheapness of the new substance, it can be readily done. It can be run in greater or less quantity as may be desired. Ninety-five per cent of the material used in the thread is cellulose, such as is used for newspapers, and 5 per cent cotton, but of course subjected to entirely novel treatment before spinning. The crude materials in this proportion are consequently very cheap compared to other vegetable fibers used in weaving, and this alone will make its place in the textile market permanent. Already factories are busily at work in England and in Bohemia, as well as in Saxony, turning out the paper thread and yarn, which is bought by textile manufacturers for use in their mills. It is the business of the inventor to supply the spun paper and not, with the one exception of floor coverings, to make up the multitude of articles which can be woven from xylolin.

RUGS AND CARPETS.

Among the various fabrics in which the greatest amount of work has thus far been accomplished is the making of rugs and carpets, and at the factories of the inventor paper floor coverings are woven in great quantities, and are already being exported to the United States and elsewhere with marked success. Here the yarn of heavier quality, woven into beautiful designs, is found to possess advantages over certain classes of floor coverings. They can be turned out in any thickness as rugs, mats, or carpets. They are elastic to tread, do not retain dust readily, and are easily cleaned by beating or washed without fear of injury. Unpalatable to moths, they are not eaten by these insects. The paper floor coverings naturally do not possess the properties of rich Persian carpets, but are adapted to uses to which oriental rugs can be ill put. Although they can be made in pile, they are at present manufactured chiefly after the manner of an ingrain carpet, but in finely wrought, artistic patterns. They are clean and fresh, and particularly suited to summer homes and veranda use.

Another great field for the paper yarn is in the manufacture of bagging, being a practical substitute for the more expensive jute. It has been found best, however, in making sacks to mix one thread of jute with two of paper. The combination secures the advantages of jute gunny cloth and the lightness and cheapness of wood paper. Closer woven, equally strong, and at one-half of the cost, it can replace with advantage the jute sacking now in general use. Inasmuch as the production of jute is localized and the demand for it steadily increases, xylolin used in place of jute for sacks will make those who have hitherto used jute sacking in large quantities more or less independent of the jute market, with the high prices now prevailing.

Sacking made of the combination of xylolin and jute seems to be a cleaner and a neater fabric and not as heavy. The output of this combination paper sacking is already of great proportions, and it is estimated that in the near future the new sacking will be a formidable rival of the jute now in use the world over.

USED FOR HATS, SHOES, AND WALL HANGINGS.

The spun paper fiber has been woven into outing hats for men and women. "Canvas" shoes and slippers have been made of it at nominal cost. Some idea of its adaptability for towels may be gathered from the fact that last year alone 7,000,000 pieces were made and sold, and it is likely that not one purchaser in a hundred but thought he was buying linen toweling at bargain prices. These are wholesaled at about 24 cents a dozen, medium size. It should not be thought that the new fiber is put upon the market as a crafty imitation, but makers of many sorts of textiles have found it so serviceable that they use it for mixing with other thread and yarn or weave it alone.

Wonderfully successful have been the essays in making wall hangings and furniture coverings. When used for mural decoration, the material may be either nailed or applied with paste, and the delicate coloring that the paper fiber takes renders the effect of the tapestries singularly effective. For upholstering veranda furniture the material has an unusual advantage beyond its merits of decoration because it is not subject to injury by light or dampness or even by rain.

ADAPTED TO WEARING APPAREL.

For certain grades of wearing apparel the new paper fiber has in itself an important sphere. The readiness with which yarn can be made up into cloth of any design or shade makes its use in this regard easy and successful. One peculiar feature when the paper thread is used in garments for clothing of medium thickness is the resultant warmth. It possesses the advantage of lightness in comparison with an equal bulk of linen or even cotton. The cost of the material for a full three-piece suit of clothes of average weight is not over \$1. In lighter weights it is particularly adapted to outing costumes. It can be made to look like a good grade of ducking and is an excellent material for wear in the Tropics. For workmen's jackets and blouses and overalls it can be made up in brown and blue at half the cost of the material usually employed. There have been articles in the market made of tough, narrow strips of paper sewed together, making vests and light jackets to be worn under other clothing, retaining the warmth of the body, but allowing little or no ventilation. This has nothing in common with xylolin. The new paper fiber, however, being woven, possesses sufficient porosity to make a hygienic garment. It seems well suited for underwear. In consideration of the fact that loosely woven underclothing is replacing to a certain extent the heavier flannels of an older generation, the paper fiber has been found to be very serviceable, combining warmth and lightness, and is fine enough to be worn by the youngest children.

Although there seems to be no limit to the uses to which the paper yarn can be put, fashion will have to take up the new material before it can be worn as gentlemen's and ladies' clothing. While possessing most of the good qualities of fashionable stuffs, it may lack in finish and style the appearance of finer grades of woolen goods; but it

really makes little difference whether the paper-woven garment becomes the vogue or not, as its many admirable qualities, coupled with excessive cheapness, are bound to make it an article of practical and far-reaching beneficence.

The process of preparing the new thread and yarn is a secret one and is patented in all civilized countries. It is of interest to note that the inventor intends starting mills in the United States, where the necessary raw material is abundant and of fine quality.

A full line of samples of the paper textiles referred to, as far as made at the inventor's mills, has been forwarded by me to the Bureau of Manufactures for the inspection of American manufacturers and others interested.

JUTE TRADE.

BRITISH INDIA.

RAW MATERIALS CHEAPER—ADVANCING PRICES FOR BURLAPS.

Consul-General William H. Michael, of Calcutta, in the following report reviews the jute trade situation in India, as follows:

From April 1 to the 10th jute has been on the decline, and on April 11 was quoted at \$20 for "crack marks." Notwithstanding this fact the jute being received in Calcutta more than doubles the amount received in the corresponding period of last year. The gunny trade is good, and it is thought by the manufacturers that there is no necessity for a decline in hessians, even if raw material gets cheaper.

The great demand is for light weights. The latest word from America is that there is a strong demand in the American market for burlaps, especially for light weights, and that the supply of these goods is now absolutely exhausted and prices have begun to advance. This news makes the Calcutta manufacturers of jute cloth happy, and he sees no reason for a decline in prices of manufactured jute.

The weekly Hessian report issued for April 11 says: "During the early part of the week a large business was done in light weights for the near months and in 11 porters up to September, a higher level of prices being established for these deliveries. At the close, however, although rates in most cases are maintained, an easier feeling is noticeable. The prices for immediate delivery ran as given below:

	s.	d.
32-inch, 40 yards, 8 ounces per yard, Hessian.....	10	14
36-inch, 40 yards, 8 ounces per yard, Hessian.....	12	3
40 yards, 8 ounces per yard, Hessian.....	13	4
36-inch, 40 yards, 10½ ounces per yard, Hessian.....	14	11
40 yards, 10½ ounces per yard, Hessian.....	15	0
45-inch, 40 yards, 10½ ounces per yard, Hessian.....	18	8
Fiji sugars, 16 ounces.....	26	8
Wheat pockets, 12 ounces.....	19	8

The forecasts are favorable, and the jute crop for this year will be larger than last unless something out of the usual happens.

METALLURGY.

MANUFACTURES OF METALS.

HARDWARE TRADE OF MEXICO.

GENERAL CONDITIONS AND AMERICAN SALES METHODS.

Consul-General Philip C. Hanna finds that the hardware business of Monterey, which is the principal distributing point of northern Mexico, is largely in the hands of the Germans, concerning which he writes:

As a result of this some favoritism is shown toward their own country in the placing of orders; but as a matter of fact sentiment cuts a small figure in business transactions here, as in other countries. The man dealing in hardware or any other commodity buys where he can get the best goods on the best terms and the most suitable and available for his market.

General hardware, like machinery, is a business in which the United States has a large lead in Mexico. Nearly all shelf hardware comes from the United States. The American tools are found to be superior to those brought from any other country. It is understood that England comes next in excellence of material, but falls behind in finish. Dealers report that English saws, for instance, are of quite as good metal as those brought from the United States, but the handles are not polished and the blades have not the sheen that the saws from the United States have. Consequently, when the goods are shown side by side the buyer almost invariably takes the American make. A comparison of prices shows very little difference, but the availability of the article from the standpoint of the dealer is almost wholly determined by its appearance.

LINES OF COMPETITION.

In regard to tools, locks, screws, etc., the Germans have little opportunity for competition, except on the cheaper grades. But in other lines of hardware Germany and England have leads over the United States. This is most apparent in cutlery. In pocketknives England is almost without rivalry. English knives are not cheaper than those made in the United States, so dealers say, but they are better and in more demand. "It is a strange thing," says one dealer, "that the Americans can make the best of carpenter's tools and yet can not equal England in the making of pocketknives." In table cutlery German manufacturers do a large business in Mexico, not for the reason that their wares are superior, but they are cheaper.

While most of the agricultural implements used in Mexico, especially plows and heavier machinery, come from the United States, it might surprise some Americans to know that nearly all of the hoes used here are made in England, while imports of shovels and spades are almost equally divided between Germany and England, and those

nations practically control the trade in this line of goods in this country. The only apparent reason for this is that this line of goods is not being properly offered in Mexico by American manufacturers.

Up to a short time ago the United States had a practical monopoly of the trade in barbed wire in this country, but now German barbed wire is being introduced, looking very much like the American article, and it remains for a trial to determine which is best and cheapest.

WEIGHTS AND MEASURES—MARKET SUPPLIES.

In several respects the Germans are better traders when it comes to bidding for a foreign market than are the Americans. For one thing they use the metric system of weights and measures when dealing with a country like Mexico, where the system is in vogue. Invoices coming from Germany are in meters and kilograms, while the United States and England measure and weigh everything in feet and pounds, and these measurements must be translated in the buying and selling of goods in this country. This may seem to be a small detail, but it is quite as much as the difference between the finish of an American saw and that of an English saw.

To enumerate the articles of common use in this country and their origin the following might be mentioned: Corrugated roofing comes mostly from England and partly from the United States; Portland cement, almost wholly from England and Germany; sheet iron from England and United States; tin plate nearly all from England; woodenware almost exclusively from the United States; stoves are from the United States, with exception of inferior kinds made in Mexico; tinware is mostly from the United States, and enameled ware is nearly all from Germany.

In making his selections, the merchant considers what will best suit his trade, and thus it sometimes happens that he has to buy a similar article from two or three nations in order to satisfy the demand. The mere matter of the difference in shape between a galvanized pail made in the United States and one made in England forces the requirement of keeping both kinds in stock. Some customers want the American tin bucket with a broad bottom while others want the English kind, which is shaped like a truncated cone. Of course one kind could be made as easily as the other in the United States.

HOW ONE FIRM WAS SUCCESSFUL.

An instance of adapting their products to foreign requirements, which appears rather unusual among American manufacturers, has recently been shown by the manufacturers of a certain lock. It has generally been understood that the American lock, with its small key, perfectly safe and sure, yet convenient and responsive, is the best lock the world has ever produced, but still there are those who must be convinced. A representative of this lock company came to Mexico and found that certain people preferred either the Mexican lock, with its key as big as that that once opened the doors of the Bastille, or else the French lock, with its convenient hand-bolt. Taking a note of this, he went back to the factory and devised a lock that combines the strength of the Mexican with the convenience of the French, both to be operated with a key as small as the blade of a penknife, and now he has the lock trade of this country. If other lines of American manu-

facture would equally adapt themselves to the foreign trade there would be less worry about competition.

Americans can not be told too often about the necessity of properly packing goods for long-distance shipment. This precaution is especially necessary to those who ship by sea, as some do from the United States to Mexico. Some American cutlery, for instance, arrives here from New York by way of Tampico almost ruined by salt sea air. Similar goods cross the Atlantic from England or Germany safely. Fine cutlery coming from Europe is carefully packed in a strong box lined with tin or zinc, and when it is opened here there is not the slightest suggestion of rust.

Another drawback to trade with the United States is found in the hardware business, as in every other branch. It is the short-time allowance for payments. Invoices from England, Germany, and France invariably give responsible merchants six months for payment, while sixty days, I am told, is the best term that can be obtained in the United States. [The leading wholesale hardware importers in Monterey are named by the consul-general, and the list is indexed at the Bureau of Manufactures.]

INDIA.

DIFFICULTIES UNDER WHICH THE FIREARMS TRADE IS CONDUCTED.

The following information concerning the prohibition of rifles from entering British India and the difficulties under which the sale of firearms is conducted in Calcutta has been furnished by Consul-General William H. Michael:

A notification has been sent by the British India government to dealers in firearms and ammunition to the effect that after a certain date all rifles of the .45 bore, together with ammunition therefor, will be prohibited from entering India. This will cause considerable loss to the manufacturing firms in the United States. The dealers in rifles here in Calcutta and throughout India have made representations to the Government as to the great loss and inconvenience that will result from the order, but the Government, after considering all protests and representations, issued the notification, which is understood to be final.

The sale of rifles, guns, and pistols in Calcutta is attended at best with a great deal of inconvenience in consequence of official regulations. For every rifle and gun imported the importer has to deposit with the collector \$16, and for every revolver or pistol, \$5. This money lies in the hands of the collector until the arms are sold. When the dealer furnishes proof of their sale and the sale becomes a matter of record, the deposit of money is returned, less one-eighth of 1 per cent. Of course this inhibition extends also to ammunition for guns of the calibers indicated.

AMENDED REGULATIONS.

Mr. Michael, reporting later, says that the dealers in firearms and ammunition in Calcutta protested so strongly against the total prohibition of the sale of the .45-bore rifle that the Government has seen fit to publish the following notification on the subject:

The government of India recognize that their recent orders prohibiting absolutely the importation of rifles of .45 bore may cause hardship and loss

to the trade as well as to individuals who ordered such rifles prior to the issue of the recent notification. While adhering, therefore, to their decision to stop the importation of all rifles of .45 bore, they have decided to accept in part the suggestion made by the London Chamber of Commerce, viz, to permit the importation into India for a reasonable period of rifles in respect of which the manufacturers can furnish absolute proof that they were actually in course of manufacture on September 11, 1906.

In pursuance of this decision, the governor-general in council is pleased to make the following rules regarding the importation of such rifles. Gun dealers and manufacturers of India may apply to the local government for special permits for the importation of all rifles of the prohibited bore which were bona fide ordered and were actually in process of manufacture prior to September 11, 1906, by persons of the exempted classes resident in India. Such applications must be supported by the necessary documentary evidence and must be submitted before May 1 next, after which no applications will be received. The local governments will forward the applications to the government of India, with whom will rest the decision as to whether permits shall be granted or not.

The secretary of state for India will at the same time be asked by telegram to inform gun dealers and manufacturers in the United Kingdom that applications may be forwarded to him, so as to reach him before May 1 next, for permits to import into India rifles of the prohibited bore which have been ordered direct from them either by exempted persons resident in India or by exempted persons now in England who intended to import them into India when completed. Similar evidence will be required by the secretary of state as to the bona fides of the order and as to the facts that the rifle was actually under construction on September 11, 1906. The secretary of state will be asked to forward all such applications received up to May 1 next to the government of India, who, if satisfied as to the genuineness of the order, will issue special permits for their import. No application for the import of a rifle of .45 bore will be received or attended to after May 1, 1907, on which date the prohibition will become absolute.

BRAZIL.

REDUCTION OF DUTY ON WIRE WHEN IMPORTED BY AGRICULTURISTS.

Consul-General George E. Anderson, of Rio de Janeiro, furnishes the following information relative to the reduction in import duties on barbed-wire fencing and on agricultural implements or machines when imported direct by Brazilian agricultural interests and by State and municipal governments:

The Brazilian Government in 1904 so increased the duty on barbed wire that the trade in this article in the entire country was greatly crippled. The further increase in 1905 practically destroyed the trade. The law given effect in the current year reduced the duty to a theoretical ad valorem of 5 per cent, or, with the extras and incidentals, an actual duty of about 10 per cent ad valorem. This rate of duty, however, applies only to the wire when it is imported "by agricultural syndicates or directly by farmers, agents, or other agricultural enterprises, directors of cattle farms, or State or municipal governments."

HOW AMERICAN EXPORTERS COULD INCREASE BUSINESS.

As a matter of fact, the same rate of import duty applies to almost all articles for farm use, agricultural implements, machinery for sugar and similar establishments, most industrial machinery, railway machinery for plantation use, portable engines, cotton ties, and the like, of use and benefit to plantation owners. It is plain that if American manufacturers interested in these lines had agents here

who could and would get in touch with the fazendeiros or plantation owners, there would be a good opportunity for business, the low tariff rate bringing many things within the range of consumption which are beyond consumption when the exceedingly high duties are imposed. How high these duties are in some of the classes may appear from that on barbed wire, barbed wire being of especial importance in this connection, because it has been the center of agitation and negotiation, commercial and governmental, for lower duties, and also because there has been an actual lowering of the duty this year.

When imported by a commercial house for sale in the ordinary manner barbed wire pays a duty of \$2.07 in American gold upon 100 pounds. The duties are assessed upon the gross weight, not net, and the importer pays the same duty on the wood reels as he does on the wire. Yet even this duty is something of an improvement over the prohibitive rates of over 123 per cent enforced last year.

It is to be hoped that the concession to the agricultural interests allowing them to make such importations for their own use at favorable rates of duty can be taken advantage of in some manner, and what is true of barbed wire is true of agricultural implements and appliances generally. The demand for such goods is great, but what demand there is, under present conditions, is probably to be met very largely by sales through agents direct to consumers.

CHILE.

DEMAND FOR SMALL HEATERS AT VALPARAISO.

Consul Alfred A. Winslow reports that gas stoves are used in Valparaiso quite numerously, since the price of coal has advanced more than 50 per cent. He describes the gas-stove trade as follows:

Those most used are made in Switzerland, and are handled by the gas company. They do not measure up to the American make for general utility, but are stronger and heavier and are sold cheaper. Then they come better packed, which is an important factor in the eyes of the dealer. There are some American gas stoves sold here, but so far as I can learn there is only one house handling them, and the manager complained much about the poor packing, stating that there was much loss from that cause alone, which added to the price and reduced the profit.

I feel sure there is a fine opening here for both gas ranges and heaters of American make. At this writing the demand is greater than the supply and promises to continue. Exporters, however, should not expect to get the business and hold it without an effort. It is a trade that will stand cultivation. When orders are received great pains should be taken in filling them and in seeing that they are securely packed, above everything else. It must be remembered that goods are roughly handled several times before they reach this port and the test is severe. Cheap, brittle, or knotty lumber should not be used and every case should be bound with strap iron. Castings should be carefully protected and not allowed to shake about in the case.

SPAIN.

AMERICAN MACHINE TOOLS IN GOOD DEMAND—SLOW DELIVERIES.

A report from Consul-General B. H. Ridgely at Barcelona states that the demand for high-class American machine tools in Spain is steadily increasing. He says:

Although there are no exact statistics, it is likely that at least \$200,000 worth of these tools reached Spain from the United States during 1906, and at present there is complaint of the prospective slow delivery of recent orders. All sorts of high-class machine tools are required, but American agents here have little demand for those of inferior and cheap quality. These are abundantly furnished by Germany. It has also been intimated that in some instances German tools unmarked with the name of the country of origin have been sold as American products.

Incidentally, it may be said that there is no Spanish law or treasury regulation which requires imported merchandise sold in this country to be marked with the name of the country of production; and if American exporters think such a law or regulation is advisable, they ought to make representations accordingly to the Government at Washington. In many instances such a regulation would certainly be in the way of a disadvantage to some of our most active competitors.

In further reference to the sale of machine tools, it may be stated that the only automobile manufactory now existing in Spain [address on file at Bureau of Manufactures] is equipped entirely with American machines, and these are giving the greatest satisfaction. In this connection it may be interesting to know that a French automobile firm has bought a large plant at Vitoria, in northeastern Spain, and will shortly begin the manufacture of automobiles there. They will equip the plant with some two hundred machines, and in all likelihood the most of these have been bought, or will be bought, in America.

AMERICAN SAFETY RAZORS PREFERRED.

Consul-General Ridgely also writes that recent inquiries in regard to the sale of safety razors in Spain develops the fact that a considerable demand is beginning to be created for razors of this sort, the market situation being described in the following report:

Several varieties of American and German "safeties" are on sale in Barcelona. The most expensive and best known of these is a popular American razor, which is sold at retail for 25 pesetas (\$4.45), with twelve extra blades thrown in. Another is also a well-known American article which is retailed at 10 pesetas (\$1.78), with one blade, extra blades being sold at 4 pesetas (71 cents) each. There is also a cheap German imitation of the American article. It retails at 5 pesetas (89 cents), with one blade. Extra blades for this razor are sold at 2 pesetas (36 cents) each.

In Paris and elsewhere on the continent of Europe some very clever advertising schemes have been put into effect by the continental agents of one of the best known American makes of safety razors. For example, in the Boulevard des Capucines, at Paris, one sees the automatic figures of two French soldiers, one shaving with the old-

fashioned razor, the other with the new American safety. The mechanical spectacle thus presented is very amusing, and great crowds continually gathered about the shop in question. Nothing of this sort has yet been done in Spain, though this is essentially a country of clean-shaven people.

A GOOD SALES POINT.

Barcelona, the metropolis of the Spanish peninsula, has a population of nearly 750,000, and is the great commercial and industrial center of the country. Therefore any American house having a first-class European agent who can speak Spanish or French might find it worth while to send him here. Spaniards are fond of all automatic contrivances, and such an amusing mechanical spectacle as the one above referred to as attracting attention in Paris would doubtless interest them greatly. A similar cinematographic reproduction from life might also prove a very effective advertisement.

The safety razors most liked here are those which furnish a dozen or more extra blades, which may be inserted from time to time in the place of exhausted blades, and which do not have to be honed or sharpened. The trouble with razors of this class as now offered here is that their first cost is too high. A cheap safety razor with twelve extra blades would sell well all over Spain, if properly introduced and closely advertised. If a practical safety corn razor exists it ought to command a sale in this country, provided it can be sold cheap. [Names of dealers in razors, etc., in Barcelona are on file in the Bureau of Manufactures.]

ITALY.

SHOP EQUIPMENTS IN DEMAND MAKE AMERICAN OPPORTUNITY.

Upon information furnished by Consular Agent Arthur Verde-rame, at Licata, Consul W. H. Bishop, of Palermo, reports that in that part of Sicily, which is largely engaged in sulphur mining, extensive use is made of electrical appliances, wire rope, hand tools, etc., employed in the mining and the workshops. The report continues:

Most of these articles are imported at present direct from Germany or through agents of German houses established at Milan. Travelers from those houses visit the district regularly soliciting orders. It is estimated that this trade reaches \$100,000 a year. The reputation of American products in the same line for character of material and finish is good, and it is believed that an opening would be found at Licata by American makers if they would send travelers, either direct or through agencies to be established in some of the larger cities of Italy.

To avoid risk of loss, sales should be made against documents or on credit backed by the agents' responsibility. The large mining firms are generally esteemed as reliable.

NEED OF FARM APPLIANCES.

The British consul-general in Italy says that the disastrous eruption of Vesuvius and the continuance of the Calabrian earthquakes have effected the curious change that the agricultural population of

the central provinces is migrating to the south in search of work. In the meantime landowners are suffering sore straits in the matter of labor for their estates; and the result must be, the consul says, an outcry for labor-saving appliances, of which manufacturers should take advantage. He suggests that the visit of an agricultural expert would be very desirable to decide the type of machine most suitable for the land. In every case the machine should be as light as possible, the horses being small, and bullocks being generally used for heavy draft purposes.

GREAT BRITAIN.

AMERICAN MALLEABLE FITTINGS UNSATISFACTORY.

Consul Albert Halstead reports that one of the departments of the corporation of the city of Birmingham, which purchases supplies of various kinds, states that its experience with American malleable fittings, such as pipe joints and the like, had not been altogether satisfactory, upon which the consul comments:

I am informed that although the gage of the fittings was all right, the articles themselves were rather carelessly made, not faced properly, and that the quality of the iron was not so good as that of those made either in Germany or France, while the price for the German fittings was the lowest. It was asserted also that the English fittings of the same kind had been found clumsy and not so satisfactory as the German, but that recently manufacturers of such fittings in the United Kingdom had improved their style considerably. Several samples of American, French, and German fittings were exhibited to me, and a casual examination showed that the criticism as to finish was justified, so far as the samples presented were concerned, that of the Germans being neater.

FRANCE.

FARM MACHINERY MADE IN PARIS.

Hernando De Soto, deputy consul-general at Paris, reports under date of March 19, that a considerable number of factories making agricultural machinery have started business on a large scale in Paris since 1902. He states the factories are equipped with all modern improvements and use American machine tools almost exclusively, and that the machines turned out by them enter into competition with American-made machines and are even cheaper in price. These factories are also said to turn out parts of agricultural machines of every American type.

SANTO DOMINGO.

INTRODUCING AGRICULTURAL IMPLEMENTS.

Consul William H. Gale, of Puerto Plata, reports that agriculture is still extremely backward in the Dominican Republic and that the methods and tools in use are very primitive. As to prospects for development he writes:

The country is wonderfully rich, however, and is, I think, at the beginning of a period of rapid development, which will be chiefly of

an agricultural character. Therefore the prospects for the early introduction of modern agricultural implements seems very bright. The best method and, in my judgment, the only practical method to adopt to introduce such implements at this time would be to send a competent personal representative, familiar with the Spanish language, to travel through the country and demonstrate the advantages and saving to be derived from the use of improved implements.

MINES AND MINERALS.

MEXICO.

LARGE INVESTMENTS OF AMERICAN CAPITAL HAVE BEEN MADE.

The following information concerning mines and mining in Mexico and the direct interests of Americans therein is furnished by Consul-General Alfred L. M. Gottschalk, of the City of Mexico:

According to the best private authority a conservative estimate of the American capital brought into Mexico since 1902 and invested in mining and smelting ventures amounts to about \$125,000,000 gold. This figure may materially increase the general estimate of American investment in Mexico, which I estimated some little time ago at \$750,000,000 gold value. The following is an approximate investment of American capital in mining and smelting in the States mentioned since 1902:

Aguascalientes	\$3, 000, 000	Puebla	\$5, 000, 000
Chiapas	1, 000, 000	Queretaro	1, 000, 000
Guerrero	5, 000, 000	Tabasco	1, 000, 000
Guanajuato	12, 000, 000	Tamaulipas	1, 000, 000
Hidalgo	5, 000, 000	Veracruz	1, 000, 000
Jalisco	10, 000, 000	Zacatecas	5, 000, 000
Michoacan	2, 000, 000		
Mexico	2, 000, 000	Total	64, 000, 000
Oaxaca	10, 000, 000		

It is also stated that in the States of Sinaloa, Sonora, Coahuila, Durango, and Nuevo Leon at least \$60,000,000 of American capital has entered within the last five years. This consulate-general recently referred to the liberality of the present Mexican mining laws and to the fact that an effort would soon be made to improve without restricting them. A comparatively large number of American mining enterprises have neglected to comply with the requirements of the Mexican law in regard to incorporating in the Republic. This omission is probably caused by a desire to avoid the payment of the Mexican stamp tax, which is based upon a percentage charge of the amount of the corporation's investment. It can not be too strongly urged upon such concerns that their neglect to incorporate in Mexico deprives them of all legal existence within the country, and that they may discover, when it is too late, how grave their error has been in this regard.

AMERICAN ENTERPRISE.

There appears to be particular interest awakening in mining in the States of Hidalgo and Guerrero. In Guanajuato there is soon to be an extension of the railroad which will connect with the different

mines and enable them to bring their products easily and cheaply to the main line of railroad. Guanajuato is also to be the scene of sinking shafts at great depth and in exploring deep strata. The transportation enterprise that has these interests in hand is an American one, which has obtained a subsidy from the Mexican Government. In the State of Hidalgo, at Pachuca, there are important deals about to be consummated which will result in a change of ownership from English to American hands of some very valuable mines and also the investment of some \$10,000,000 of American capital.

Most of the investment in the state of Mexico is at present at Sultepec, Temascaltepec, and Taxco. In the state of Chiapas the larger portion of American investments has been in mineral oil. Guerrero shows no very large American investments at present, but it has a number of small and successful ones. The state of Hidalgo has one large American investment and numerous small properties. The state of Jalisco has some twenty different mining camps scattered throughout its extent. The Michoacan investments are small and chiefly in copper. In Zacatecas the chief camp is near the city of Zacatecas, wherein a "boom" similar to that which characterized Guanajuato of late years is looked for. There are also scattered camps throughout the state. The territory of Tepic shows twenty-one mines (192 claims), the property of Americans. Querétaro has one American concern which, it is said, has invested \$175,000, and other smaller ones.

The foregoing, although not a complete statement of the entire mining situation in Mexico, will show how vast and how widely distributed is American investment in this particular field. In correspondence on this subject with Mexican officials I have found them uniformly desirous of fostering and encouraging the introduction of American mining capital into their respective states.

NICARAGUA.

COUNTRY ABOUNDS IN RICH DEPOSITS OF ORE.

Consul E. W. Trimmer, of Cape Gracias á Dios, furnishes the following information in regard to the mining industry of Nicaragua:

The mining industry in this district continues to show a steady improvement. Plants for the treatment of tailings by the cyanide process have been installed at a number of mines, and results have proven so satisfactory as to warrant a large increase in capacity. The output of gold bullion from this district now amounts to about 5,000 ounces monthly. The electric power plant installed by one company has been in successful operation since February, 1906, and a new generator is now on the way and will be used to supply power to a group of mines. Transportation has been so much improved since the river steamer of the United States and Nicaragua Company was put in commission that it is now possible to get machinery and supplies into the mines at a fair cost.

The ore-bearing limits of the district have not yet been ascertained, but the location within the past two years of many ore deposits at distances of 20 to 30 miles from the main properties warrants the belief in a fairly continuous ore-bearing zone along 50 miles or more of

the foothill region, with a width of from 12 to 20 miles. Owing to the thick tropical growth, prospecting as it is known in the United States is impossible. Natives as guides and machete men are necessary. Several rich placer deposits have been discovered and worked out by crude methods, but in the opinion of mining men the present and future prosperity rests on the large bodies of medium-grade milling ore. The deposits thus far opened occur as replacements along fault lines and fissures, occurring largely in highly altered andesites and other eruptives. The surface soil and grass roots resting on and near the outcrop of ore bodies have been found to contain payable quantities of gold at widely scattered points, and most of the mines have confined their operations to treating this surface soil in Huntington mills.

SURFACE WORK—CHEAP LABOR—NEW MINING CODE.

Very rich shoots of oxidized ore have been found at all the mines near the surface, and below that point very little work has been done; in fact, there is not a "hoist" in the district. Unaltered sulphide ores occur in large quantities, carrying from \$8 to \$40 per ton in gold, in addition to sulphides of iron, zinc, silver, copper, and lead. The mines are at an altitude of 1,500 feet above sea level and distant some 250 miles by river, or 100 miles air line, from the coast. For many reasons this is not considered a desirable country for a penniless miner, labor being performed very cheaply by natives, but for a mining man who can command a few thousand dollars the district is considered by engineers on the ground to be a most promising field. They also say that many known ore deposits exist which in the United States would be considered worth immediate development, the present operators selecting only those which are the most easily reached and favorably situated.

The new Nicaraguan mining code seems to meet the approval of all interested; by its terms miners are allowed to import everything required for the mines free of duty. Almost the entire mountain country is virgin land open to location, and while one large Pittsburgh company has a mineral grant covering almost the entire district, they now grant prospectors terms which are almost as favorable as could be obtained from the Government.

No known coal or oil exists in the district, but the multitude of small streams, with falls and rapids, make possible the use of hydro-electric plants for power purposes.

CUBA.

RICH IN MINERAL DEPOSITS—SHIPMENTS OF ORE.

Consul R. E. Holaday, of Santiago, transmits a report on the mining industry of that part of Cuba, which follows:

Mining is one of the principal sources of wealth of the province of Santiago de Cuba, owing to the abundance and accessibility of the minerals. Iron is the most abundant, but copper and manganese are found in sufficient quantities for profitable exploitation. Gold, lead, zinc, and asphalt are also said to exist, but so far there has been no development of any of the mines said to contain these minerals.

Four principal companies are engaged in mining and exploiting minerals. From the mines at Daiquiri 3,536,121 tons of ore were

produced to December 31, 1906. The production for the year 1906 was 510,500 tons. The ore has all been shipped to the United States except about 75,000 tons, which went to England, Germany, Belgium, and Cape Breton, Nova Scotia. The Daiquiri ore, which is red hematite, occurs on the hillsides, usually near the top, and the mining is all open-cut work, more in the nature of quarrying, the only underground work being the exploration tunnels. [Photographs of mining operations at Daiquiri furnished by the consul will be loaned by the Bureau of Manufactures to applicants.] The company also owns several iron mines on the north coast, in the Mayari Mountains back of Nipe Bay, and is about to commence the construction of a broad-gage railroad from the mines to the bay at Cagimaya, at which place will be built two wharves and other necessary equipment for economically handling the ore and exporting it to the United States. It is estimated that it will be possible to ship 1,000,000 tons annually.

Another American company operating near the Daiquiri mines shipped its first ore in 1884, since which time about 5,000,000 tons have been produced, nearly all going to the United States. The ore is transported from the mines to Santiago Bay by rail, where the company has a fine steel pier.

LITTLE COPPER MINED AT PRESENT.

Copper deposits exist throughout almost the whole of the southern portion of Santiago Province, but so far the only attempt that has been made to mine it for exportation is in the vicinity of El Cobre, about 15 miles west of Santiago. A deposit of extraordinary richness exists in this territory. It is said that during the twenty-three years the El Cobre mines were operated more than \$50,000,000 worth of copper was produced. The works were entirely destroyed during the war of 1898. In 1902 an American company purchased them and began to drain them by means of enormous steam pumps. The expense of this operation was greatly reduced by forcing the water in the mines through a system of "Californias" filled with old iron, whereby the copper which it contained was precipitated in the form of a cement. At tide water on the bay the company also erected reduction works, comprising a smelter and concentrator, the latter having a capacity of 300 tons per day. Owing, however, to a series of accidents at the mines, whereby the output has been greatly curtailed during the last year, these are not in operation now. The copper contents of the ore mined is about 5 per cent. The company operates about 12 miles of railroad, extending from tide water on the bay to the mines.

The following table shows the number of tons of iron, copper, and manganese ores shipped and the value of same for the past four years:

Year.	Iron ore.		Manganese.		Copper.	
	Tons.	Value.	Tons.	Value.	Tons.	Value.
1908	557,960	\$1,389,335	23,610	\$97,670	783	\$3,888
1904	376,470	849,408	20,214	82,170	10,599	235,764
1905	564,200	1,474,632	6,771	33,856	19,638	599,138
1906	686,960	2,210,331	8,300	83,000	24,558	330,236
Total	2,125,590	5,923,706	58,895	296,696	55,473	1,174,026

BELGIUM.

SECOND ONLY TO THE UNITED STATES IN ZINC PRODUCTION.

Consul J. C. McNally says that the zinc industry of Liege is interesting, because of the location there of the largest zinc manufacturing concern in the world. He furnishes the following particulars of the zinc trade:

In 1906 the zinc market was particularly active and the demands exceeded the supply. The yearly average price was \$129.94 per metric ton (2,204.6 pounds), or \$8.12 higher than for previous year. In 1906 the Liege company produced 93,040 tons of ingots, 67,253 tons of rolled sheets, and 9,442 tons of oxide. Of the latter the United States received \$43,690 worth. The ore production of the company in various parts of the world for 1906 was 123,954 tons of zinc and 5,832 tons of lead ore. They also imported 158,624 tons of ores purchased abroad. The total importation of zinc ores into Belgium during 1906 amounted to 523,096 tons, of which Sardinia furnished 109,046 and Australia 122,279. The production of spelter in Belgium was 150,060 tons in 1906 against 143,300 tons in 1905. The total production of spelter in the United States, Europe, and Australia is given as 690,965 tons against 647,720 in 1905. Following is a table of the production and the quantities contributed by the different countries:

	1906.	1905.		1906.	1905.
	<i>Tons.</i>	<i>Tons.</i>		<i>Tons.</i>	<i>Tons.</i>
United States.....	198,910	180,360	Silesia.....	134,180	127,895
Belgium.....	150,060	143,300	Austria and Italy.....	10,610	9,210
Rhine district.....	67,615	66,185	Poland.....	9,460	7,520
Holland.....	14,420	13,550	Australia.....	1,010	.....
Great Britain.....	51,760	50,125			
France and Spain.....	52,940	49,575	Total.....	690,965	647,720

The average price of spelter ex ship London in 1906 was \$136.29, against \$122.79 in 1905. The average price of lead in 1906 was \$83.97 per metric ton, against \$66.48 in 1905.

CHINA.

RICH LATENT RESOURCES.

A report from Vice-Consul Rea Hanna, of Amoy, gives an American mining engineer's account of some mineral deposits in Fukien Province, China. It is stated that a mountain of magnetite iron ore a mile long and three-fourths of a mile wide exists near Amoy which is estimated to contain 10,850,000 short tons. Limestone, galena, kaolin, and zinc blende deposits are also reported in the same neighborhood, while the natives bring in samples of rich antimony ore and graphite. The consul adds that if the Chinese Government will enact mining laws which will make the investment of foreign capital and the introduction of foreign enterprise a possibility there appears to be a splendid field for American engineers and capitalists.

TIN PRODUCTION.

BOLIVIA.

MINES OF REPUBLIC ARE YIELDING MUCH WEALTH.

Mr. William B. Sorsby, American minister at La Paz, advises that Señor Ventura Farfan, superintendent of Bolivian customs, has sent to the minister of the treasury the following report relative to the production and exportation of Bolivian tin for the year 1906:

The exportation of tin for the year 1906 was 638,486 quintals (quintal, 220.46 pounds), or 29,370,368 kilos (kilo, 2½ pounds), of tin barrila of 60 per cent tin, or, say, 17,622,220 kilos of pure tin, which was the entire quantity produced. The total duties of exportation exceeded the sum of 1,561,740 bolivianos (boliviano, about 39 cents American currency).

The departments of the Republic producing this metal are Potosi, Oruro, La Paz, and Cochabamba, in the following proportion: The Department of Potosi, which comprises Uyuni, Tupiza, Colquechaca, and a part of the exportation through the custom-house at Oruro, 15,674,808 kilos; Department of Oruro, 11,910,477 kilos; La Paz, 1,748,191 kilos; and Cochabamba, 36,892 kilos. The average price of Straits tin, the basis of value in Europe for the year 1906, was £179 12s. per ton of 1,000 kilos of pure tin (\$871.38 per metric ton of 2,204.6 pounds), which corresponds to that of Bolivia of 60 per cent pure tin £108 (\$525.58), which, with the average rate of exchange for 1906 of 19½ pence (39 cents) per boliviano, and deducting the commissions, etc., in Europe, give a net result of 1.2 bolivianos per kilo (about 21½ cents per pound), a very remunerative price for the producers of Bolivia.

The production for the year 1905 was 601,948 quintals, or 27,689,621 kilos, with a commercial value of 26,205,141 bolivianos. The production for 1906 had a commercial value of 35,244,444 bolivianos, showing a large increase.

STRAITS SETTLEMENTS AND CORNWALL.

STIMULATION IN MINING CAUSED BY THE HIGH PRICES.

Consul-General D. F. Wilber, of Singapore, furnishes the following review of the tin-mining industry from a local newspaper:

The gradual introduction in the Malay Peninsula of modern machinery and systematic mining methods, such as hydraulic work, dredging, and so on, will soon pretty solidly supplement the ordinary open workings of the Chinese mining towkay. We have by no means exhausted the tin-mining capabilities of the peninsula, even if the rate of Chinese alluvial mining is slackening. And even outside the Federated Malay States in the Siamese provinces on both sides of the peninsula there are good prospects of a largely increased activity in tin production. But still the present state of the market is good enough for Cornwall in Wales to launch out freely into new mining ventures. Not only have many of the mines in Wales become the property of English investors from all parts of the country, but America is now coming forward, and it is stated that an American syndicate, with a capital of half a million sterling, proposes to work a large group of mines with the most up-to-date appliances, and to erect a large smelting establishment in Marazion. Perhaps the most hopeful feature of the new movement is the large scale on which many of the

properties are about to be operated, as one of the prominent causes of failure in the past has been the number of small concerns, conducted on the cost-book system, with an inadequate supply of capital.

Discussing the future of tin, and the prospect of past low prices not being repeated, a well-known financial paper has these remarks: "Mining for tin in the Malay Peninsula is now very much more expensive and difficult; Bolivia is not likely to seriously increase her output for some years at least, especially in view of the doubled export duty on tin; and other fields, such as Tasmania, Spain, and Portugal, may be said to be steady producers. A few figures from the New York Metal Exchange's Statistical Review of the Domestic and Foreign Metal Markets are instructive: The total number of tons (of 2,240 pounds) supplied during 1906 was 98,760, of which Cornwall produced 4,900—the biggest production since 1897."

GOLD COINAGE IN CHINA.

REGULATIONS FOR MINTING AND PROTECTING COIN.

Consul-General James Ragsdale furnishes the following report from Tientsin, dated March 19:

The Board of Finance and the Director of the Chinese Imperial mint have passed the following resolutions in connection with the coinage of gold:

1. That more mines be prospected for, so as to insure a sufficient supply of gold.
2. That the provinces be ordered to make purchases of the metal and quickly transport same to Tientsin for minting. Rewards will be granted to the provinces which make the largest purchases.
3. That experimental coinage be made first in Tientsin, and extended to other provinces should it prove to be satisfactory.
4. That a uniform rate of exchange be fixed.
5. That one-tenth of the pay of officials of all grades above 100 taels be in gold.
6. That the gold coins be accepted for payment of customs and likin.
7. That gold, either in bullion or coin, is prohibited from being exported.
8. That the metal is prohibited from being used for the coating of idols.
9. That a law be passed to prevent the destruction of gold coins for any purpose.

HEILUNGKIANG GOLD MINES RESTORED.

The Muho and Kuanying Shan gold mines in Heilungkiang, which have been restored to China by Russia on the repayment of the expenses incurred by the latter during the last several years, are said to be still very rich, and may be again made prosperous if sufficient funds are put into the working of them.

Taotai Liu, director of the mines, requests His Excellency Yuan to consult the Tartar generals of Fengtien, Kirin, and Heilungkiang regarding the raising of funds by whatever means for the reorganization and enlargement of the mines, so as to place them in their original prosperous condition during the course of the next few years. It is said that His Excellency Yuan is in favor of this proposal. Owing to the threatened attitude of the large number of Hunghutze in the vicinity of Muho and Kuanying Shan, the mines are now guarded by about 2,000 Chinese troops.

CROPS AND FOODSTUFFS.

GRAIN TRADE.

ENGLAND.

UNSATISFACTORY CARGOES ARE ARRIVING FROM GULF PORTS.

Consul Walter C. Hamm, of Hull, says that the arrival of the steamship *Cynthia* at Hull with a cargo of corn from New Orleans "with, as is claimed, from one-third to one-half of it in a damaged condition offers a favorable opportunity for looking into the importation of corn from America to this port and the influences which may aid or harm that trade." Mr. Hamm continues:

The *Cynthia* loaded at New Orleans with a cargo of 13,000 quarters of corn. It left that port January 3, and was twenty-eight days on the voyage, arriving in Hull February 1. A casual inspection of her cargo showed that much damage had been done from heating, and the causes which brought about this heating are probably largely responsible for the steadily lessening imports of corn from the United States to England. It is not often that a ship arrives with so much spoiled corn aboard as the *Cynthia* had, but a corn-laden vessel rarely arrives without a smaller or larger fraction of its cargo damaged from bad loading or defective ventilation, or from the corn being too green to ship, or from all these causes together. Corn importers complain that in this way they are subjected to much loss, and their willingness to purchase corn from America has been consequently lessened.

CHANGE OF SHIPPING POINTS.

The arrival of damaged corn at Hull, and probably in England generally, has been especially noticeable since the practice of shipping from the Gulf ports has come into use. Formerly nearly all the corn brought from the United States to England was shipped at Boston, New York, Philadelphia, or Baltimore. These conditions have been reversed, and most of the corn is now shipped from the Gulf ports. This change in direction of trade is probably due to the cheaper freights given by the railroad companies running from the corn-producing States to the Gulf ports in comparison with the rates given by those running from the Mississippi Valley to the Atlantic ports. If other conditions were equal, this transference of corn shipments would probably have continued until most of the corn shipped from the United States to Europe would have come by way of the Gulf. But it has been found that a cargo of corn shipped from the Gulf ports is much more apt to become heated than if shipped from the North Atlantic ports. This is owing to the warm climate of the former ports and the moisture-laden atmosphere of the Gulf of Mexico, both of which tend to produce heating and consequent

spoiling of the grain. A cargo coming from Boston, New York, or Philadelphia is rarely found in a bad condition unless there has been defect in loading. These facts have become so well known that all corn shipped from Galveston and New Orleans is known as "Gulf corn," and is under suspicion, some importers placing an absolute ban upon it.

The tendency of corn to sweat when coming from a warm climate and through warm water into cold water and a cold atmosphere is seriously aggravated by the practice of placing upon it other goods, chiefly cotton, cake, meal in bags, and sometimes lumber. This presses the corn into almost a solid mass and shuts off ventilation. The green lumber in itself is sufficient to cause tender grain to germinate. If separate holds were provided for different classes of goods, there would be less danger of damage.

WRONG CERTIFICATION—MARKET PRICES.

Another cause which hurts the reputation of American corn in the English market, it is asserted, is the inferior grade of corn which, very often, is certificated at a higher or better grade than what it really is, and the receiver is compelled to pay for the corn according to the grade stated on the certificate. Still another is the practice of mixing different kinds of grain, as oats with corn, and the certificate stating that it is oats pure and simple, and the receiver being compelled to pay for oats, although there is maize mixed with it. The present price of corn in Hull delivered is, wholesale, about \$5.16; retail, about \$5.40 per 480 pounds—that is, 8 bushels of 60 pounds each. The American bushel is 56 pounds. The present rate of freight from New Orleans and Galveston is 6 cents to 6½ cents per American bushel of 56 pounds. This is the freight only, and to this should be added the cost of insurance and working ex ship before the corn can be delivered to buyers. The cost of insurance is trifling per quarter; the cost of working is about 4 cents per quarter.

Maize is chiefly used for feeding cattle, both as corn and as cake, but corn that comes from the Black Sea and the Plate is largely used for poultry as well as for feeding purposes. It is generally split before being sold and distributed to different parts of the country.

CHANGING IMPORTATIONS.

The imports of corn from the United States into England have fluctuated greatly, as the following table will show:

	1901.	1902.	1903.	1904.	1905.	1906.
Weight....cwt..	25,564,900	1,975,138	18,676,011	8,077,000	18,310,200	18,617,700
Value.....	\$29,724,625	\$2,806,150	\$23,423,585	\$9,780,685	\$23,183,380	\$22,404,233

On the contrary, it will be seen from the table that follows that the imports of corn from Argentina into England have largely increased. In 1905 the imports were nearly double what they were in 1901, while a still further large increase was recorded last year:

	1901.	1902.	1903.	1904.	1905.	1906.
Weight....cwt..	10,443,800	13,391,887	18,719,463	23,266,300	18,964,600	24,524,200
Value.....	\$13,082,620	\$17,754,710	\$22,529,105	\$27,593,415	\$25,454,310	\$29,024,457

It is plain from these facts that exporters of corn from the United States to England must change the manner of shipment so as to remove or at least lessen the liability of damage during the voyage if they are to recover or even retain a market in England. Exporters from Argentina are making strenuous efforts to get full control of the corn market in this country. They have already had much encouragement. One plan adopted by them is for the shippers to agree to recoup the buyer for all loss from injury to the corn while in transit, howsoever caused. This makes the shippers more keen in protecting the corn, and consequently themselves, from any carelessness on the part of the shipping companies in loading and in transit. It would doubtless facilitate business with America if corn were sold there by the shippers on exactly the same terms as that which comes from the River Plate.

GRAIN INSPECTION.

MERCHANTS ARE LOOKING FOR CORRECTIONS OF ANNOYANCES.

Consul John L. Griffiths, of Liverpool, makes the following additional report on the complaints in Europe concerning the methods now in force in the United States for the weighing, grading, and inspection of grain:

This subject is very important in view of the increased importations of grain from Russia, India, and Argentina. The complaint of the English corn trade associations, which is the complaint also of the continental associations, is that the certificate of the American inspector of grain has to be accepted as final in England and elsewhere, while no opportunity is afforded of challenging the correctness of the inspector's grading, which is often said to be improperly done. I have been told again and again by members of the local corn trade association that the American inspection in many instances can not be depended upon by reason of the carelessness or inefficiency of the inspectors, and that serious differences have arisen between the English importers and their customers because of the dissatisfaction of the latter with the grain furnished to them on the basis of the American certificate. It is felt here and on the Continent that the foreign corn trade associations should have some voice in the appointment of the American inspectors, at least to the extent of determining their qualifications, and proper redress if their grading should be erroneous.

I understand that a conference has been had between some of the representatives of the English and continental corn trade associations and the representatives of similar bodies in America, and it is hoped that a solution of the difficulty may be reached. Any delay in the matter jeopardizes more or less our grain exportations, because of the increasing ability of other countries, especially of Argentina, to meet in great measure English and continental requirements. The burden of the English complaint is not that there is any conscious or deliberate purpose to commit a fraud upon foreign buyers, but that under the prevailing system incompetent inspectors are sometimes appointed and that there is no relief against their incompetency.

FRANCE.

COMPLAINTS AS TO AMERICAN CORN FROM EUROPEAN MARKETS.

The following paragraphs on the condition in which American corn reaches European purchasers are from the annual report of Consul-General Frank H. Mason, of Paris:

It seems necessary to revert to the somewhat threadbare subject of American maize, the large and growing export of which is menaced by complaints that come from France, Germany, and other European countries against the damaged condition in which it frequently arrives at European ports. The dimensions of the traffic invest the subject with special importance. France imported from the United States in 1904 180,000 metric tons and in 1905 240,000 tons of corn. The exact figures for 1906 are not yet accessible, but it is unofficially stated that on account of the drouth and reduced forage supply of last summer this branch of import is still increasing. Of the 240,000 tons imported in 1905, 70,000 tons were distilled or manufactured into starch and glucose. The remaining 170,000 tons were used as feed for cattle, hogs, horses, and poultry—that is, as an auxiliary to agriculture.

In close proportion to the increased import of corn are the complaints of French importers, distillers, and agriculturists that an undue percentage of the American cereal becomes heated in transit and arrives in a musty, damaged condition, which greatly impairs its value or even renders it dangerous for certain purposes. Cases are reported in the agricultural papers where a large part of a cargo is found to be musty, the point of each kernel greenish in color, and covered with mold, or even showing evidence of germination.

RIGID STANDARD OF INSPECTION NEEDED.

An international conference of corn merchants, which was held in London on January 24, has taken up the whole subject so fully and seriously that it need only be said here that American corn imported to France comes into competition with corn from Argentina and other countries, from which, by reason of dry weather or greater care in harvesting and shipment, the grain arrives here in uniformly good condition. The facts seem to be that much of the American corn crop is harvested late in autumn, when the weather is cold and wet, and that it is insufficiently dried when shelled and assembled in cargoes for export. It is specifically charged that cargoes of corn coming from Norfolk and Newport News, and covered by formal inspection certificates, have been found to contain as high as 20 per cent of water, whereas the maximum limit of safety is 16 per cent. The feeling on this subject in western Europe has now reached a point which renders necessary a more rigid standard of inspection to protect the important export trade in American corn from being seriously compromised.

GERMANY.

DEALERS GIVING SHIPPERS A CHANCE TO RECTIFY CONDITIONS.

Consul Thomas R. Wallace, of Crefeld, in an interview with one of the principal grain dealers in the Rhenish-Westphalian district,

was informed that at a recent meeting of the delegates for the European grain dealers it was agreed that no decisive action would be taken at present with regard to the grain trade with the United States, leaving the situation as follows:

The delay is for the purpose of giving the Americans an opportunity to improve the existing conditions. It is also believed that some time should be taken to permit an investigation of the matters complained of and the possibility of a compliance with the demands made from this side; that such information obtained by both parties relative to the questions in dispute would lead to an agreement reasonable and fair to each. In case this is not accomplished a general boycott will be declared on all American grain. At this meeting he said that more cases were cited as to the condition of American grain on its arrival, which were worse than those heretofore brought to notice and bordered very closely to swindling. He further informed me that there is absolutely no demand for American grain in the Rhenish-Westphalian Board of Trade, as the dealers are all afraid to buy, but the sale of Argentinian grain has correspondingly increased, and it has now taken the place entirely of American wheat. The excellent trade in American grain formerly existing in the Rhenish-Westphalian district has dwindled to nothing.

MALTA.

INCREASED SHIPMENTS OF WHEAT AND FLOUR FROM THE UNITED STATES.

Consul J. H. Grout, of Valletta, reports that for the six months ended March 1 of this year there has been quite a revival of the wheat and flour trade in the Mediterranean. The consul adds:

Especially has this been so with regard to wheat and flour shipped from the United States, England, and France. A local expert informs me that in the market here it is estimated that over 8,252,000 bushels of macaroni wheat of American production alone have been received during the six-months period at various ports in the Mediterranean and Adriatic. It was only a few years ago that such a thing as American macaroni wheat was wholly unknown. Owing to adverse crop conditions existing in Russia, that country has been unable to supply its usual demands from macaroni-making countries in the Mediterranean and elsewhere for macaroni wheat, and the result has been that such countries have been forced to seek other markets in order to fill their requirements. For June has thus favored the United States, which, with an abundant supply of excellent quality, has been able to make up for all deficiencies. The excellence of the American product has proved so satisfactory that, even if crop conditions change, as they will sooner or later, it has found so much favor that it will doubtless still be required, quality being still kept up and freight rates and prices not being prohibitive.

Speaking for Malta and the trade here, although small as compared with other places in the Mediterranean, these islands have contributed their share of the demand. Imports of flour, regardless of the fact that we now have several mills in operation disposing of their products in the local market, have been fairly brisk. America managed

to obtain a fair share of the total of imports, but its volume has scarcely kept pace with that of wheat. American flour has to compete at present with not only the local article, but also with that coming from England, France, and other markets which, being nearer, have an initial advantage in freight rates and time of passage. General competition here in flour is very keen, and the merchants are satisfied with a margin of profit that would hardly be tolerated by those of the United States. In the matter of wheat there is not as much competition at present. During the past six months large quantities of macaroni wheat and lesser of the white and Manitoba varieties have been received. Much has been stored and orders are still being sent for further demands. Out of 72,568 quarters (quarter, 8,252 bushels) of wheat received at Malta from September 1, 1906, to March 1, 1907, 47,538 came from New York and 24,836 from Russia; of the 101,435 bags of flour received 24,651 came from New York, 21,594 from Marseille, and 36,027 from Liverpool.

SUGAR TRADE.

ITALY.

UNITED STATES GREATEST AND SOUTH EUROPE THE LIGHTEST USERS.

Consul J. E. Dunning, of Milan, reports as follows on the world's consumption of sugar:

The number of pounds consumed per capita for the year between August 31, 1905, and September 1, 1906, is stated as follows in the Milan market: United States, 92.46; Great Britain, 77.83; Denmark, 71.21; Switzerland, 53.35; Sweden-Norway, 46.97; Germany, 43.40; Holland, 39.16; France, 36.17; Belgium, 33.04; Austria-Hungary, 23.87; Russia, 19.32; Portugal, 15.69; Spain, 10.27; Greece, 10.07; Turkey, 9.75; Bulgaria, 7.78; Roumania, 7.52; Italy, 7.45, and Servia, 6.75. Italy's low consumption is interesting from the fact that in this country sugar retails for about 16 cents per pound. Considerable discussion is now on foot with reference to the high taxation on sugar, which, as says a recent writer in one of the foremost Italian reviews, "instead of being, as in other countries, a common ingredient of the food of the people, is looked upon as a luxury to be used only on some grand fête day or in sickness."

Though the Brussels Convention of 1903 established \$1.20 as the difference which should exist between import duties on sugar and the tax on its manufacture in all sugar-exporting countries, Italy, which is not an exporter, so taxes sugar in both its manufacture and its importation as to create a difference of from \$4 to \$6, according to the quality of the stock. Every quintal (220 pounds) of sugar manufactured in Italy is taxed \$13.40 on its fabrication. Sugar importations are taxed \$19.10 per quintal for first-grade stock and \$16.98 for second grade, the total tax on sugar amounting in Italy to about 340 per cent of its true value. Sugar imports into Italy from July 1, 1906, to February 28, 1907, amounted to 7,825 tons, an increase over the amount imported during the same period of 1905-6 of 1,261 tons.

AUSTRIA-HUNGARY.

HEAVY BEET CROP AND LARGE EXPORTATION OF THE PRODUCT.

Consul Urbain J. Ledoux, of Prague, supplies the following information concerning the exports of sugar from Austria-Hungary during the past three years:

The export season which closed on December 31, 1906, was no doubt one of the most remarkable in the history of the beet-sugar industry of Bohemia, which furnishes about two-thirds of the total Austrian production, and about three-fourths of its export. As no separate statistics of exports from Bohemia exist, figures are submitted for the entire monarchy. The final reports, which have just been published, show that the export of refined sugar from Austria-Hungary amounted to 703,976 tons in 1906, against 480,722 tons in 1905 and 470,167 tons in 1904.

The large export of 1906 must be attributed to the great beet crops of 1905-6 and 1906-7. For the calendar year 1906 the production of sugar was estimated at 1,326,000 tons, and as the home consumption has only absorbed 538,000 tons there remained in Austria-Hungary, with the addition of the old stocks, about 900,000 tons available for export. Of the total export Austria furnished 586,192 tons and Hungary 117,784 tons, or a total of 703,976 tons, representing a value of \$36,700,000. As already stated, Bohemia furnished most of this export. The bulk of the refined sugar exported consisted of crystal sugar, say 422,100 tons, or about 60 per cent of the total export.

Examination of the figures showing the distribution of refined sugar shows that England was the largest buyer, taking nearly one-half of the total export, say 303,448 tons, or 131,936 tons more than in 1905, followed by the East Indies with 117,707 tons, Trieste with 101,108 tons (for eastern distribution), and Turkey with 81,108 tons. As the United States was amply supplied, only trifling quantities could be exported thereto.

MAURITIUS.

AN INCREASED PRODUCTION AND DECREASED EXPORTATION.

Consul Theodosius Botkin, of Port Louis, supplies the following information concerning the sugar output of Mauritius in 1906 and the depressed condition of the industry:

The present sugar crop of Mauritius is the largest in the history of the industry, the output amounting to 205,000 tons, possibly 210,000 tons. The crop year begins August 1. On July 31, 1906, there were 31,756 bags in store, and from that date up to January 25, 1907, 2,585,571 bags have been received from the estates. This is an excess of 281,708 bags over the quantity received from the estates during the same period of the preceding crop year. There were in store on February 1, 1907, 1,282,832 bags against 927,201 at the same date last year. The exports from August 1, 1906, to January 25, 1907, were 102,715 metric tons of 2,204.6 pounds each against 109,195 tons during the same period of the preceding year.

The Bombay market controls sugar prices at Port Louis, and the slump on that market early in the season has persisted and brought

great discouragement to Mauritius planters. The latest market advice from Bombay quoted Mauritius sugar at \$2.44 to \$2.52 per 110.23 pounds. It seems that the Java and German sugars are taking the Indian markets and crowding out the raw sugar of Mauritius. The situation has been further aggravated by the recent campaign of the Hindoos against using sugar in the manufacture of which they suspect the use of animal agencies, and they have been wrongfully told that such is the practice here. But regardless of this it appears from the report of the chamber of commerce that exports have fallen off to every country hitherto buying Mauritius sugar, except to the United Kingdom, to which there has been an increase of 4,000 tons over each of the two preceding years. The exports to Indian ports have fallen 2,500 tons and those to South Africa nearly 7,000 tons, as compared with the same period of the preceding year.

MEAT TRADE.

GERMANY.

REVIEW OF THE SITUATION—REDUCTION OF INSPECTION CHARGES.

Consul Carl Bailey Hurst, of Plauen, Saxony, supplies the following information concerning meat prices and meat supply in Germany:

Considerable dissatisfaction has been manifested among German packers as well as consumers on account of the continued high prices for all classes of meat. Although there has been a slight downward tendency, figures have not yet fallen to a level that is deemed reasonable. Some indication of the state of affairs may be gathered from the quotations of the cattle market for the last twelve months in this neighborhood. Matters seem to have reached such a depressed condition that nearly all packers and butchers and particularly the small retailers complain that profits in many instances amount to nil. Prices for 1906 were the highest known, and the butchers' guilds all over the country are endeavoring to devise some means of amelioration, so that meat will be more abundant and profits be restored to a normal and legitimate basis.

In March, 1906, the lowest wholesale prices asked were from \$17.85 to \$18.09 per 50 kilograms (110.23 pounds) for prime beef. Prices rose steadily through the summer and reached the highest point in September, \$21.42 per 50 kilograms, which lasted, with only very slight change, into December, when, during the last market days, they dropped to \$21.18. The lowest price for choice, clipped sheep was \$9.52 per 50 kilograms, live weight, rising once or twice to \$11.42, and at the close of the year standing at \$10.23. Hogs and pigs, first quality, started in January, 1906, at \$18.09 per 50 kilograms (110.23 pounds), live weight, less 20 per cent tare, and advanced to \$18.80 in March, the highest figure of the year. Prices then fell until the end of May, when the bottom was reached at \$14.75; but this was only of brief duration and the figures went up to those quoted at the beginning of the year, falling toward the end of December to \$15.71. There was no uniformity for choice veal, and prices rose and fell with perplexing frequency. During the first quarter of 1906 the lowest figure quoted was \$12.38, rising to \$15.23 in May,

and falling again in the middle of June to \$11.90; it soon rose to \$14.28 and over, closing during the last days of the year at \$15.23 per 50 kilograms.

Although here the classification is made as first quality, it should not be understood that all the meats were in reality choice. In fact, the market was so high that the best meat was not always offered, and often first-class stock brought considerably higher prices than those quoted. Through all this fluctuation the working classes have looked with suspicion on the butchers, as if these arbitrarily raised the prices, while the butchers and packers were appealing to the home government for relief, and those in authority were doing the utmost to find some sound, practical way of easing a situation which was regarded by them and all others as unfortunate.

INSPECTION OF FOREIGN MEATS.

More or less in this connection was a reduction in the fees for the inspection of foreign meat at the time of its importation into Germany. A new schedule of fees was published by the central government which went into effect on February 15. The expense of inspection is not assumed by the government, but must be borne by the importers. The new and old scales are as follows:

Description.	New schedule.	Old schedule.
Live animals:		
Beef cattle.....per head..	\$0.36	\$0.596
Calves.....do.....	.12	.18
Hogs.....do.....	.14	.18
Sheep.....do.....	.096	.14
Horses, mules, etc.....do.....	.715	.715
Meats:		
Casings.....per kilo.....	.00119	.00238
Bacon.....do.....	.00238	.00476
All other kinds of prepared meat.....do.....	.00476	.00595
Lard (chemical inspection, including preliminary tests).....do.....	.00119	.00238
Hogs (inspected for trichina).....per head..	.178	.238

a Kilo = 2½ pounds.

Packers have expressed their regret that the fees for the inspection of domestic meat have not also been reduced. Extraordinary official care is displayed in the inspection of meat products in all parts of Germany. Lately it has come to notice that in some of the outlying districts of large cities there are hog-fattening yards, where private slaughtering has been carried on, with the result that diseased animals have occasionally been killed and surreptitiously brought to small dealers and eating houses. In one locality it is now necessary that all cattle, sheep, hogs, goats, horses, and dogs be examined before slaughtering and afterwards, even when the meat is to be used solely in the household of the owner.

It is asserted by those interested that the reduction in the price of meat is hardly to be considered, unless some alteration is made in the inspection regulations, which, in spite of their many confessedly advantageous points, increase the price of meat on account of the extra pecuniary burden thrown upon butchers and others. Some idea of the fundamental thoroughness with which the meat inspection in this country has been recently conducted may be inferred from the fact that in the year 1904 the value of meat and animal

organs objected to amounted to about \$9,520,000, and in the year 1905 to something over \$10,234,000.

DEMANDS OF THE GERMAN PACKERS.

The chief demand of the German packer seems to be a call for action on the part of the Government to permit the importation of live stock from abroad and the reduction in meat and cattle duties. A comparison of certain grades of live stock under the old customs tariff and the higher protection now in force may be deduced from the ensuing figures. Before March 1, 1906, the duty assessed was as follows: On every hog or pig brought across the frontier, \$1.19; for each cow or bull, \$2.14; young cattle and oxen up to 2½ years, \$1.19; an ox over 2½ years old, \$6.07; on fresh beef or veal, \$3.57 per 100 kilograms; on fresh pork, \$4.05. Since March 1, 1906, the following duties have been collected: Hogs, per 100 kilograms, live weight, the importation of which, however, is as good as forbidden, \$2.14; beef cattle, per 100 kilograms, \$1.90; so that a steer weighing 700 kilograms would pay in duty \$13.33 instead of \$5.95, as formerly. Now the duty on dressed beef, veal, and pork is \$6.43 per 100 kilograms instead of \$3.57 or \$4.05. If one reckons a beef of 700 kilograms live weight at 375 kilograms in dressed meat, the duty thereon would now be \$24.10, in addition to which must come the octroi, inspection, freight, loss on those parts of the animal, such as blood and suet, which are not allowed entry, and other expenses amounting to some \$9.52, making a total of \$33.62. By the importation of live cattle at the present time a steer would be charged a duty of \$13.33, with \$7.14 additional expenses, being \$2.38 cheaper than on the dressed meat, because with live weight the whole animal is brought in, making a total of \$20.47, instead of \$33.62 on the dressed meat. Thus the animal on the hoof costs relatively some \$13.09 less.

GREAT BRITAIN.

SCOTCH PROFESSOR DEFENDS AMERICAN GOODS.

Consul R. W. Austin forwards a clipping from the Glasgow Herald, being a brief report of a lecture on the present meat inspection in the United States, delivered by Prof. Harvey Littlejohn, who recently made a visit to Chicago, concerning which the consul writes:

The lecture or address was to the Edinburgh Sanitary Society, on March 16. I have called the attention of the Glasgow sanitary and health authorities, including the subcommittee, which is considering a recent seizure of American meat by Dr. A. M. Trotter, the local veterinary surgeon, to Professor Littlejohn's lecture. The Herald's account of the lecture is as follows:

Prof. Harvey Littlejohn, of the chair of forensic medicine in Edinburgh University, lectured on Saturday evening to the members of the Edinburgh Sanitary Society on a visit paid to the Chicago stock yards. Professor Littlejohn traced the growth and development of the great meat industry in Chicago and other American cities, and as an indication of the magnitude of the Chicago trade mentioned that the daily arrivals were over 40,000 animals. He arrived in Chicago almost believing many of the horrible accounts which had been printed in the newspapers of America and in some of our own; but he found the heads of departments highly educated and refined, while the ordinary employees compared in physique, intelligence, cleanliness, and general appearance of health most favorably with the best of those he had seen in this country. It

was true he only saw over the premises of two large firms, but he thought they might be taken as representative, though there were doubtless some black sheep in the trade. He would infinitely prefer to partake of meat prepared as he saw it prepared than that dressed in the great majority of private killing houses, either in this country or in Germany, as well as in not a few of the public abattoirs which were under municipal control. Having described the system of inspection in America, the lecturer asked if we in this country had any reason to assume a superior attitude on this question. Meat inspection in this country was by no means perfect. He knew a town here of some hundreds of thousands of inhabitants in which there were 180 slaughterhouses and one or, at the most, two meat inspectors. It was not difficult to imagine what might take place under such circumstances. It was surprising to him that such an outcry should have been raised in regard to American tinned meats, when out of millions of cans consumed every year they could almost count the cases of ptomaine poisoning attributed to them on their fingers.

VENEZUELA.

IMPORTS OF AMERICAN GOODS.

Consul James W. Johnson, of Puerto Cabello, reports that the following American packing-house products are largely imported into Venezuela:

Lard, hams, bacon, and corned beef in tins. The present wholesale prices are as follows: Lard, \$16.98 per 100 pounds net; hams, \$23.16 to \$24.70 per 100 pounds gross; bacon, \$28.95 per 100 pounds gross. Corned beef, \$2.32 to \$2.51 per dozen 1-pound cans. American packers have no agency at Puerto Cabello. The proposal, if carried into effect, to send a representative to the various Latin-American countries for the purpose of establishing business connections can not fail to bring about good results; but the agent must be conversant with the Spanish language and familiar with South American business methods. In addition to a representative, a liberal amount of attractive advertising matter (printed in Spanish), such as has helped to make packing-house products popular in the United States, should be also sent out. [Names of importers of provisions at Puerto Cabello, Barquisimeto, and Valencia are filed at the Bureau of Manufactures.]

OLIVE OIL.

GREECE.

LAST YEAR'S CROP ONE-HALF THAT OF 1905.

In reporting that the olive-oil yield of the entire Peloponnesus for the year 1906 was about 50 per cent lower than for the preceding year, Consul James L. Long, of Patras, writes:

It must be remembered that the year 1905 was one of exceptional abundance in this regard, and no comparison could be even reasonably reliable unless allowance were made for this circumstance. Moreover, it so happens with this commodity that a very prolific year is generally followed by one of a very much reduced crop of olives—a provision of nature, seemingly, to preserve the trees from exhaustion.

The year 1906 was additionally unfortunate in witnessing a very great deal of rigorous and unseasonable weather during the month

of May, usually the period when the olive tree is in full blossom; and in addition to the severe weather conditions there were frequent hailstorms later on during the month of September, the usual time of the fruit's maturity, and this worked a good deal of damage to the trees.

During 1905 the wholesale local price of olive oil was about 50 cents per gallon, while in 1906 it was over 75 cents per gallon. The cost would have been still higher if it had not been for the large quantity of stock left over from the preceding year. The surplus remaining still on hand was principally owing to the exceptional yield of 1905 and in part to the limited quantity of exports, which was mainly due to the "depreciation" of gold. Nevertheless, considerable quantities of olive oil were shipped to foreign markets during the year 1906, and principally to the United States.

ISLAND OF CORFU.

The chief product of this beautiful island can fairly be said to be that of olive oil. The olive groves form a picturesque feature of Corfu, and many of the immense trees are of great age. The export of olive oil for the year 1906 to the United States was about 170,914 kilos (kilo=2½ pounds), representing a value, c. i. f. New York, of \$26,792. Besides this quantity there was said to have been other shipments, but of lesser quantity, sent to Italy, doubtless to be reshipped from there as "Lucca" or other leading brands of oil. This is the first year that olive oil in somewhat larger quantities has been shipped from the island to the United States, the exports having been previously confined to sample lots. The olive crop of Corfu for 1905 was an exceedingly prolific one, almost a record year. It is even difficult to arrive at anything like a correct estimate of what it amounted to, as a fair proportion, say one-fourth to one-third, still remains in the hands of the growers for sale and final export. The quantity shipped was about 14,000 tons, and the value may be appropriated at \$1,450,000 first cost or f. o. b., including the value of the casks and the export duty of 22 per cent, \$1,900,000. The larger shipments were made to Russia, both to Baltic and Black Sea ports, England coming next, followed by Marseille.

The 1906-7 crop of olives is practically nil, but this is not surprising, as the olive trees on this island only bear well every second year; and after the previous extensive yield it was not expected or even hoped it would be otherwise.

The olive oil exported from the port of Kalamata during the year 1906 amounted to 153,381 gallons, valued at \$118,480. Prices ruled at 65 to 85 cents per gallon f. o. b. To the United States there was sent 84,160 gallons, to Austria-Hungary 33,846, to Turkey 8,235, to Roumania 8,870, and to other countries 18,270 gallons. The olive oil exports of Patras in 1906 amounted to only \$1,550 and of olives \$1,128, most of the former going to Great Britain and of the latter to the United States.

STATEMENT FROM ATHENS.

From the annual report of Consul-General George Horton, of Athens, the following is extracted concerning Greek exports of olives and olive products:

In the general exports of Greece for the first six months of 1906 oil and oil substances had a value of \$1,693,394, against \$379,578 for

the corresponding period of 1905. The olive exports to the United States from Athens and the Piræus for the complete calendar year 1906 were valued at \$12,112, edible olive oil at \$3,170, and of lubricating olive oil, \$75,292.

ITALY.

THE OIL INDUSTRY.

Consul-General Hector de Castro, of Rome, reports that the Italian vegetable-oil industry is divided into olive and seed and nut oils, which he thus describes:

The production of olive oil steadily decreased from 1879 to 1901, but has since then increased as is shown in the following table, giving average quantities in tons:

Years.	Production.	Imports.	Exports.
1879-1883.....	305,100	5,670	75,220
1886-1890.....	228,300	4,280	54,870
1891-1895.....	222,900	3,760	52,410
1896-1900.....	160,200	11,110	47,080
1901-1904.....	241,400	12,900	44,960

[A recent dispatch from Genoa stated that the large Italian olive crop of the 1906 season was shown in increased exports of \$6,570,000 in value and in decreased imports of \$1,947,000 for the first eleven months of the year.—B. of M.]

There were, 18,137 olive-oil factories in operation in 1903, using in the aggregate 31,917 presses. Of this number but 2,412 used mechanical motors acted by steam, water, or gas power. Some 71,000 hands are temporarily employed in this work, which lasts but from eight to ten weeks annually—from the latter part of November to the end of January. In many districts the extraction of oil is still carried on with the most primitive tools and machinery. The principal centers of production are in the provinces of Puglie, Sicily, Campania, Calabria, Tuscany, Rome, Marche Umbria, and Liguria. There are some 595 seed oil-producing factories, of which 397 use engine power. They use 813 presses and employ some 1,700 hands. Such oils are mostly consumed in the north for food or light and where the olive-oil production is scarce. A certain amount of this oil is no doubt used for adulterating purposes. Although it is a rising industry, its development is slow, owing to the fact that the Italian soil and climate are not propitious to the production of the required raw material. Italy exports little linseed oil and some hemp. The amount of oil extracted from domestic seeds does not exceed 12,000 tons, including castor oil. The average annual commerce of oleous seeds and oils, other than olive and castor oils, in tons, has been as follows:

Year.	Seeds.		Oil.	
	Imports.	Exports.	Imports.	Exports.
1880-1889.....	36,014	1,785	4,399	258
1890-1891.....	43,746	2,301	3,109	205
1896-1899.....	43,667	1,845	4,150	169
1900-1904.....	56,576	1,750	6,036	119

Vive-Consul A. Piatti makes the following report from Nice:

I would call attention to the importation in Nice consular district of olive oil, which amounted in 1906 to 9,442 tons, as against an export of 3,789 tons. These figures, which are proportionately very much as in previous years, indicate clearly that the supply of olive oil produced in this district is far from sufficient for the purposes of the export trade.

The value of the olive oil imports last year was \$296,242; there was also imported \$13,080 worth of almond oil.

SPAIN.

EXPORTS GREATLY REDUCED.

Consul-General B. H. Ridgely, writing from Barcelona, says of the Spanish olive trade:

Owing to the failure of the olive crop of 1906, the value of the oil exported amounted to only \$4,135,748, as compared with \$8,650,002 during 1905, the respective quantities being given as 18,893 and 34,228 tons. The olive crop appears to have been from 30 to 40 per cent short, but this loss was made up to a considerable extent by the increased prices, both for olives and olive oil.

HIGH EXPECTATIONS FOR THIS YEAR.

Consul D. R. Birch, of Malaga, sends the following olive oil trade review for that Spanish district:

During 1905 the sale of olive oil to the United States reached 7,598 barrels, while but 75 barrels were bought last year by American houses. These figures accurately reflect the extent to which the Spanish olive-oil industry has been paralyzed. The 1905 sales were from the pressing of the previous year's crop, which was of ordinary size.

Extremely dry weather during 1905 and most of last year brought the crop of 1905 to such small proportions that most of the oil pressed was put to home consumption, while the yield of 1906 was the smallest for twenty years. The month of January is usually the busiest for the olive oil exporter, but in the opening month of 1907 the trade was at an absolute standstill. High expectations are, however, entertained for next season's crop.

ASIA MINOR.

THE OIL TRADE IN THE SMYRNA DISTRICT.

Consul E. L. Harris makes the following report on the olive production of the Smyrna region of Turkey, and of its disposition:

During the past year Great Britain, as usual, was the largest purchaser of olive oil from this district, followed by Germany, Russia, Austria, France, and America. Under normal conditions the United States would have been the largest customer after England, but the high prices ruling on the market here obliged the American customs authorities to class the oil under the name of table oil, the rate of duty on which made it impracticable for American manufacturers to import the oil for manufacturing purposes.

The failure of the olive crops of Spain, Tunis, Crete, Algiers, and Greece, which are the chief competitors of the Smyrna market, was the cause of the prices last year rising to \$17.91 from an average of \$13.15 per 200 pounds f. o. b., gross for net.

The only districts which produced oil last year were those of Smyrna, Mitylene, Adramit, and Aivaly, all of which are in the immediate vicinity of Smyrna, but as the combined crops of these places, including Smyrna, only amounted to 900,000 kintals, or 112,500,000 pounds, prices are likely to be maintained until the new crop of olives is ready. It is therefore expected that American manufacturers will be unable to import any oil from this district for manufacturing purposes before then, on account of the import duty referred to.

The olive crop ripens in late autumn and crushing begins about the end of November. The quantity produced in the Aidin vilayet in 1906 amounted to about 300,000 kintals, of which about 10 per cent was for table oil, the balance being utilized for manufacturing purposes. No table oil is exported, it being all used locally. About 30 per cent of the whole product is consumed locally in soap boiling.

Two classes are exported—the one as it comes direct from the press, and containing about 2½ per cent of “foots,” the other, after undergoing a clarifying process, which eliminates the “foots,” leaving a perfectly clear oil. The price of the latter is nearly 2 per cent higher than that of the unclarified oil. Lately also two factories have been started here for the manufacture of sulphur oil from oil cakes, but these have not yet begun working.

TOBACCO AND CIGARS.

MEXICO.

GROWING DEMAND FOR THE AMERICAN PRODUCT.

Consul P. C. Hanna, of Monterey, reporting on the sales of American tobacco in Mexico, says:

All through northern Mexico the “shuck cigarette” is the most popular amongst all classes. The “filler” is tobacco imported from Kentucky, Tennessee, and Virginia, and the wrapper is of ordinary husk. The annual consumption of these cigarettes, the fillers of which are entirely of American tobacco, amounts to several hundred millions. It is estimated that a pound of tobacco will furnish fillers for 4,000 of these cigarettes, and that in the year 1905 1,292,178 pounds of American tobacco were brought into Monterey, nearly all of which was used in their manufacture. The value of the tobacco in the United States was \$85,387 American money, the duties thereon at 55 cents per kilogram (2.2 pounds) amounted to \$330,000 Mexican, so that the cost laid down in Monterey represented more than half a million Mexican pesos. In the year 1906 the demand for this kind of tobacco had increased, and 1,539,886 pounds of it was imported into Monterey from the United States, the original value being more than \$104,000 gold, the duties being \$395,000 Mexican, which made the tobacco represent in Monterey about 600,000 pesos, or \$290,710 gold.

Mexico stands next to Cuba in the manufacture of fine cigars, yet it will surprise many to know that the most popular cigarettes in the Republic are made from American tobacco, and the demand therefor is steadily increasing, about 7 carloads of such goods arriving in this city monthly.

ITALY.

CIGARETTE SMOKING ON THE INCREASE—TAX ON EXTRACT.

Consul J. E. Dunning, in the following letter from Milan, traces the growth of the cigarette smoking in Italy and other European countries, and also gives the reduced Italian prices on tobacco extract:

In 1884 the Italian consumption of cigarettes was about 23,000,000 pieces for the year, at about which figure it remained for some years, until in 1892 there was a noteworthy augmentation, reaching to about 200,000,000 pieces. Since then the growth has been going on until in the fiscal year 1905-6 the consumption was one and a half billion pieces, a number which tends to increase. Figures filed at Milan show that in 1870 in France the consumption was 16,000,000 pieces, and that in 1905 it had risen to more than 2,000,000,000 pieces. In Germany in 1893 the consumption was 600,000,000 pieces, and in 1904 4,000,000,000. The manufacture of cigarettes is a Government monopoly in Italy. The total consumption of the Kingdom amounts to 30 cigarettes a year for each soul of the population, or 77 per year for the male population of voting age.

The King has signed the decree which went into effect on April 1, 1907, by which the price of extract of tobacco in 2½-pound cans will be reduced from 34 to 30 cents, and cans of 55 pounds from \$6.75 to \$6, with three intermediate sizes reduced in proportion. It was intended to favor the agricultural interests of the Kingdom by fixing on tobacco extract, which has a large use in that way, a price lower than that prevailing in the foreign markets. The extract in Italy is supplied from the Government monopoly, which handles the manufacture of cigars and cigarettes.

TURKEY.

EXPORTATION OF SEED FORBIDDEN.

Consul E. L. Harris, of Smyrna, reports that by a recent decision of the council of ministers of the Ottoman Empire the exportation of tobacco seed has been entirely prohibited from all parts of Turkey, for the following reason:

This measure has been taken with a view to protect the tobacco trade of Turkey, which in recent years has suffered considerably from the competition of South African and other planters who produce large quantities of tobacco grown from Turkish tobacco seed. I am informed on good authority that from natural causes tobacco grown in other parts of the world from Turkish tobacco seed will only produce one crop of tobacco having the fragrance of the original stock and that the seed of crops grown abroad will only produce a very inferior tobacco. Up to the present it has been the custom for planters outside Turkey to purchase fresh seed every year for their plantations, chiefly from the regions around Cavalla, in

Macedonia, and ancient Ephesus, in Asia Minor, which produce the finest flavored Turkish tobaccos.

THE TOBACCO MONOPOLY.

Consul Harris, in writing on the tobacco and cigarette trade in the Ottoman Empire, which is in the hands of a monopoly, The Régie Co-intéressée des Tabacs de l'Empire Ottoman, says:

This organization has well-equipped factories all over the country which turn out various grades of cigarette tobacco and cigarettes, which they retail, it is claimed, with enormous profits. The retailing is carried on through numerous tobacconists, who receive a commission of 5 per cent. Narguileh tobacco, called "tumbeki," which is used in the water pipes or hubble-bubble, is also controlled by a smaller organization with similar rights as the cigarette monopoly.

The cigar trade in Turkey is limited, owing to the fact that only a small part of the population smokes tobacco in that form. The Régie manufactures a certain amount of cigars of fair quality, but indifferent flavor. The balance of the cigars consumed in the Empire are imported from Hamburg, London, and Antwerp. Imported cigars pay a duty of 75 per cent, which limits the quality to a somewhat low standard.

TRINIDAD.

IMPORTS LARGELY FROM THE UNITED STATES.

Consul W. W. Handley, of Trinidad, furnishes the following report on the tobacco trade of that island:

During the year ended March 31, 1906, there was imported into Trinidad, from all countries, 630,296 pounds of unmanufactured tobacco, valued at \$54,835. About 95 per cent of it came from the United States, principally from Virginia and Louisiana. The importers prefer to receive it in half and quarter hogsheads. Duty, 30 cents per pound. There was also imported during the same period 149,435 pounds of cigars and cigarettes and other manufactured tobacco. A considerable quantity of tinned smoking tobacco and cigarettes in small tin boxes is imported from England. [The names of the largest importers of unmanufactured tobacco in Trinidad are filed at the Bureau of Manufactures.]

URUGUAY.

NOT MUCH IMPORTED FROM THE UNITED STATES.

Consul John W. O'Hara, writing in relation to tobacco goods imported into Uruguay, says:

The cigars and tobacco imported into this country during the year 1905 (the last for which statistics are available) were valued at \$316,550. Of this amount \$251,723 was for tobacco. These importations are from Bahia, Brazil, Paraguay, the Philippines, Habana, and Virginia in the order named. A small amount of tobacco is also imported from other countries. I am able to name the countries of export only on account of the names given to the tobacco. [The names of dealers and importers in Uruguay are on file at the Bureau of Manufactures.]

STRAITS SETTLEMENTS.

Consul-General D. F. Wilber states that there is very little leaf tobacco imported at Singapore, most of the sales of tobacco being cigars, cigarettes, and smoking tobacco.

In 1905 cigars and cigarettes to the amount of \$240,000 was imported from the United States, and from all countries \$802,000; tobacco, \$23,500 from the United States, and from all countries \$2,270,000.

GRADING OF COFFEE.

NEW YORK CLASSIFICATION ADOPTED—CROP ESTIMATE.

Consul-General George E. Anderson reports from Rio de Janeiro that the associations of coffee men in Brazil have formally adopted the New York Coffee Exchange classifications of the berry for all their purposes, the Associação Commercial of Santos recently adding its final indorsement. Mr. Anderson makes the following comments:

While there are some very serious objections to the New York method of classification, there seem to be more serious objections to other methods. The Santos coffee men gave considerable time and attention to investigating the matter and finally came to the conclusion, according to the report of the committee having the matter in charge, that while they would like to adopt some other method, they were unable to do so. Then, too, a controlling factor is in that the New York method is actually in vogue in the largest consuming market in the world. The committee of the Santos association took occasion in its report to formally outline the rules of classification thus adopted and prepared a table showing the equivalents of the several grades and their more common defects.

While this table involves more or less technical trade knowledge, of importance and interest only to coffee jobbers, it is possible that it may be of value to coffee retailers in the United States in connection with their checking up of coffee purchases. There are nine grades of coffee recognized by these coffee authorities, as follows:

Type.	Quantity of imperfect beans per 1-pound tins.	Extra margin allowed.
1	0	No imperfect beans (green, broken, etc.).
2	6	About 6 imperfect beans (green, broken, etc.).
3	13	About 25 imperfect beans (green, broken, etc.).
4	29-30	About 40 imperfect beans (green, broken, etc.).
5	57-58	About 50 imperfect beans (green, broken, etc.).
6	115-118	About 70 imperfect beans (green, broken, etc.).
7	200	In these low qualities the classification of the coffee is influenced by its appearance
8	450	
9	850	

NEAREST EQUIVALENTS OF IMPERFECT BEANS.

- 3 shells (conchas) equal to 1 black bean.
- 5 green beans equal to 1 black bean.
- 5 broken beans equal to 1 black bean.
- 2 scorched beans equal to 1 black bean.
- 5 soft or badly threshed beans equal to 1 black bean.

- 1 large stone equal to 2 to 3 black beans.
- 1 medium-sized stone equal to 1 black bean.
- 2 to 3 small stones equal to 1 black bean.
- 1 large twig equal to 2 to 3 black beans.
- 1 medium-sized twig equal to 1 black bean.
- 2 to 3 small twigs equal to 1 black bean.
- 1 large husk equal to 1 black bean.
- 2 to 3 small husks equal to 1 black bean.
- 1 pod (coco) equal to 1 black bean.
- 2 sailors (Marinheiros) equal to 2 black beans.

With respect to the lower grades of coffee indicated as depending considerably upon appearance for value it may be well to note that the new pure-food act in the United States is likely to have a notable effect in preventing the "painting" of coffee for sale as the green bean. The vast mass of the poor grades will probably continue to go to the roasters as heretofore without treatment, but the cheaper grades of the green bean may be somewhat different in appearance in the future. The New York classification of coffee has been in use in some of the more important European markets almost exclusively and is, of course, well understood and recognized by practically all markets at the present time.

Entries for the coffee crop season up to March 8 for all Brazil amounted to 15,389,486 bags, as compared with 8,777,003 the year before. On this basis the entire crop is estimated at 18,711,094 bags.

FORMOSA TEA INDUSTRY.

INCREASING EXPORTS—GOVERNMENT SEEKS TO HELP THE TRADE.

Consul J. H. Arnold, of Tamsui, furnishes a report on the Formosa tea industry from which the following abstract is taken:

The exports of tea from Formosa during 1906 amounted to 21,992,145 pounds, valued approximately at \$3,500,000, of which the United States took 17,159,310 pounds, against 18,061,911 pounds in 1905. In February, 1906, the Formosan local government changed the tea manufacturers' tax so as to make it payable by the exporters instead of by the manufacturers, as was formerly the case. This tax amounts to \$1.20 per 133½ pounds. In addition to this tax there is also imposed by the Government an export tax of 80 cents upon every 133½ pounds. During 1906 the manufacturer's tax and the export tax netted the government \$350,000.

A tea expert has been endeavoring to show the Chinese growers that the application of proper fertilizers to the cultivation of the plant will increase its productivity by at least 75 per cent, without in the least injuring the flavor of the tea. As a further step toward decreasing the cost of production, the utilization of the inferior leaves, which at one time were almost a dead loss to the dealers, is recommended in the manufacture of pouchongs and black teas. This pouchong tea is an oolong, scented with the flowers of jasmine and gardenia, etc., and finds a market with the Chinese population in the Straits Settlements, the Philippines, Hawaii, and also in some parts of the United States where the Chinese are in considerable numbers. In 1906 as much as 4,300,000 pounds of pouchong tea was exported from Formosa, about one-half the quantity being the product of the island. It is now the intention of the bureau of productive industries to secure a market in Turkey

and Russia for brick and black teas of Formosan manufacture. In this manner it is hoped to utilize the tea dust which at present finds no market.

Efforts are being made by the bureau of productive industries to effect an organization on the part of the growers and manufacturers with the aim in view of offsetting the brokers' monopoly of profits. The present system is so deeply entrenched, involves such varying interests, and is so thoroughly Chinese, that it is not to be supposed that any substantial results toward effecting a change can be hoped for until conditions change sufficiently to warrant such action on the part of the growers and manufacturers, or at least to make such action upon their part a possibility.

ESSENTIAL OILS.

ANTIQUATED METHOD OF EXTRACTION IN INDIA.

Consul-General W. H. Michael, of Calcutta, reports that at the industrial congress recently held in Calcutta a paper was read on the subject of Indian essential oils from the standpoint of a botanist, and with respect to trade in Indian essential oils of commercial value. In referring to the one method followed in India of extracting the oils the report contains the following:

In India only one method of extraction is in general use. This method is the distillation of plants, or parts of plants, by boiling with water and condensing the steam. Notwithstanding that nearly all essential oils boil at a higher temperature than water, their vapors escape with the vapor of water and collect in the distillate, where separation occurs.

That method, apparently, is followed in the preparation of all the essential oils produced in India, and the author notes that in the case of the most important of them all—the East Indian geranium or palma rosa oil, known in the vernacular as “*rusa-ka-tel*”—the distillation is conducted to-day on the method that was in vogue eighty years ago. While no opinion is expressed in the paper as to whether more modern methods of extracting oils, and the manufacture of perfumes, would be an improvement on the old method or not, yet it would seem that the industry could be made more profitable by the adoption of later methods and up-to-date laboratory apparatus, such as are used in America. There is a rich field in India for an enterprising American firm for the extraction of essential oils and the manufacture of perfumes by the most up-to-date methods and apparatus.

EXPORT TRADE IN OILS.

In 1879 the exports of essential oils were valued at \$40,149. In 1902-3 they had advanced to \$290,290, and the value of exports since 1903 have remained about the same. The export of musk last year amounted to 669 ounces, valued at \$4,860. This kind of perfumery is almost wholly consumed by the Maharajah and the wealthy Indian class. All other sorts of perfumes exported from India were valued at \$48,750 for 1906. The paper also says:

East Indian geranium oil, which formerly varied in composition and properties and was frequently adulterated with other oily products, is now being produced on an unprecedented scale, while prices have been materially lowered. As a consequence there is a great demand from Europe, the Indian oil maintaining the premier place in the matter of quantity.

The paper deals with lemon grass and sandal-wood oils in an interesting way. I have applied to the Indian department of agriculture for lemon grass seed or plants, for experimental use for the American Agricultural Department, and have the following answer from the director under recent date:

I am making inquiry as to where a supply of lemon grass roots can be obtained in this province, and shall let you know the result in due course.

DAIRY INDUSTRY.

CANADA.

ENGLISH COMPLAINTS OF UNDUE SHRINKAGE.

British importers are complaining of the loss in weight in Canadian cheese from its shipment at Montreal until its receipt in Manchester, say two weeks. Manchester importers, writing to the Canadian official inspectors, say that toward the latter part of 1906 they imported 1,040 boxes of Canadian cheese, in which, when received and averaged at their warehouse, they found a difference of 950 pounds between the average loss allowed and the actual loss, which added 18 cents per 112 pounds to the cost of the goods. The usual custom until recently has been to claim for all over 1 per cent difference between the invoice weight and the actual weight, but owing to an arrangement whereby the Canadian government now inspects all cheese exports, the shippers claim they have nothing further to do with the goods after this inspection; hence the importers seem to have no redress for the loss in weight.

The British complainants give the cause for this shrinkage in weight as follows, of which American cheese manufacturers should make a note:

We believe that owing to the short time the cheeses have been allowed to mature on the shelves, and the average being taken so near to the date of the make, has been the cause of this great loss, which, unfortunately, falls on the people on this side. It is important that all the factories should keep their goods at least for ten days before putting them on the market. We know that goods have left the factory boxed and shipped aboard the steamer in four days from the time of being made, which is not conducive to creating a good impression with the consumer of your produce. Of course this year the factory men have been influenced by the high prices ruling all through the season, and it has been a great temptation to them to forward their goods out of the factory in a green state, and some of the cheeses we have received have been spoiled, owing to being shipped in such tender state; and being placed in the chill rooms on some of the boats, it has completely spoiled their character and taste.

RUSSIA.

EXPORTATION OF BUTTER.

Consul-General Richard Guenther, of Frankfort, quotes official statistics to show that the exports of Russian butter largely increased in the year 1906.

While the total butter importation of Great Britain for last year only increased 4.6 per cent, the amount of butter received from Russia (including Finland) increased 31½ per cent compared with 1905. Germany, in 1906, also received 20 per cent more of Russian butter than in 1905. From various sources abroad complaints have been raised against the poor qualities of Russian butter, taking the high prices paid for it into consideration. In consequence thereof the butter and egg exchange of St. Petersburg is taking steps to fix certain grades and standards for the various kinds and qualities of Russian butter.

BRAZILIAN RUBBER CROP.

THE UNITED STATES TAKES INCREASED QUANTITIES.

Consul-General George E. Anderson, writing from Rio de Janeiro, says that the record of rubber exports for 1906 from Brazil is not yet complete with respect to the Manicoba and Mangabeira shipments as a whole, but authoritative returns are to be had for the shipments from the Amazon, upon which he submits the following figures of a firm at Para:

The total output for the entire Amazon country, including Iquitos, shows an increase of about 2½ per cent as compared with the shipments of the year before, while the shipments for the year show an increase of about 6½ per cent to the United States and a decrease of something over 1 per cent in the movement to European ports. The total shipments, including the shipments direct from Iquitos, were 34,768 metric tons (metric ton, 2,204.6 pounds), classified thus: Fine 16,705, entrefine 3,039, Sernamby 8,693, and Caucho 6,331. Of the total the shipments direct from Iquitos amounted to 2,613 metric tons, leaving a total of 32,155 metric tons from the Brazilian ports alone. The total exports of rubber from the Amazon country for the past eleven years, in kilos of 2½ pounds, were as follows:

Year.	Exports to Europe.	Exports to United States.	Year.	Exports to Europe.	Exports to United States.
	<i>Kilos.</i>	<i>Kilos.</i>		<i>Kilos.</i>	<i>Kilos.</i>
1898.....	12,556,424	9,045,450	1903.....	16,061,547	15,033,395
1897.....	10,915,464	12,520,856	1904.....	14,334,668	16,369,468
1898.....	12,078,742	9,660,265	1905.....	18,666,543	15,260,345
1899.....	11,551,691	13,878,318	1906.....	18,575,451	16,192,304
1900.....	14,313,996	12,434,667			
1901.....	14,739,520	15,550,978		158,473,968	149,015,916
1902.....	14,689,912	13,859,863			

In its comparative proportion of the Brazilian or rather Amazon crop the United States seems to be falling behind somewhat, its average share of the crop for the foregoing period being 48.46 per cent, while that for 1906 was 46.57 per cent. The United States, however, continues to take almost as much of the Amazon product as the whole of Europe and will undoubtedly continue indefinitely as the banner rubber customer of Brazil and Peru.

SPRING FRUIT PROTECTION.

GERMANS ARE STILL EXPERIMENTING WITH SMUDGES, ETC.

Replying to an American inquiry, Consul-General A. W. Thackara, of Berlin, makes the following report relative to the German use of smudges in the protection of fruit trees, vines, etc., from frosts:

It is the opinion of all those from whom I have heard that the protection of trees from damage which may be caused by late frosts, at least in Germany, is by no means in general use, and the method may still be considered in the experimental stage. For instance: In Werder, about 25 miles from Berlin, the center of a large fruit-growing industry, the president of the fruit growers' association writes me that the method is very little employed. In isolated cases the growers have used dried leaves, weeds, sawdust, or some other cheap material which will produce smoke, with more or less favorable results. In the vine district of the Rhine and among the fruit growers of Wurttemberg when a number of the neighboring owners unite together and make a concerted movement to use the smudge method a certain degree of success has been obtained, but the method is not in general use in Germany. It is not intended to give the impression that the question of the protection of fruit trees and vines from frost by means of smudges is not of interest to the agriculturists of this country—far from it. Many exhaustive experiments have been made by experts and others and are still being made, and while the results have not yet been as favorable as were wished for, a satisfactory solution, which would mean millions of dollars probably to those interested, is still hoped for.

AGRICULTURE.

THE UNITED KINGDOM.

CHANGING CONDITIONS CALL FOR INCREASED FOOD IMPORTS.

From a recent official publication covering the acreage and live-stock returns of the United Kingdom for the year 1906, the following statement has been compiled showing the changes which have occurred in acreage under crops, bare, fallow, and grass, and in live stock, during the past thirty years:

Description.	1877.	1906.	Description.	1877.	1906.
	<i>Acres.</i>	<i>Acres.</i>		<i>Acres.</i>	<i>Acres.</i>
Wheat.....	3,321,065	1,801,271	Permanent grass.....	Not given.	27,446,784
Barley.....	2,652,300	1,931,651			
Oats.....	4,238,957	4,138,407	Total under crops		
Beans.....	506,701	290,780	and grass.....	47,264,185	47,195,879
Pease.....	313,470	154,434			
Potatoes.....	1,392,784	1,193,662	Cattle, horses, sheep, and		
Turnips.....	2,419,296	1,877,505	hogs.....	<i>Number.</i>	<i>Number.</i>
Mangolds.....	407,518	499,443	Cattle.....	9,731,537	11,691,955
Cabbage, kohl-rabi, and			Horses, used for ag-		
rape.....	229,786	226,880	ricultural purposes		
Clover and rotation			and unbroken.....	1,894,128	2,110,024
grasses.....	46,026,946	6,706,912	Sheep and lambs.....	32,220,067	29,210,035
Small fruit.....		91,510	Hogs.....	3,984,447	3,680,740
Flax.....	130,846	55,458			
Other crops.....	654,249	463,648			
Bare fallow.....	633,495	317,299			
Total arable land..	Not given.	19,749,005			

The most noteworthy change in the foregoing statement is the decrease in wheat acreage of about 46 per cent, although the decreases in the other grain acreage have their significance in British agriculture. When it is taken into consideration that the population of the United Kingdom has increased during the years under consideration 11,000,000, the reasons for the vast imports of foodstuffs into the United Kingdom are at once apparent. The gross income derived from the ownership of lands in Great Britain in 1870 was \$267,635,800, and in 1905, \$206,994,600, a decrease of \$60,641,200.

The following statement showing the imports of grain and flour into the United Kingdom in the years 1864, 1870, 1876, and 1906 gives a fair view of the changed conditions in British agriculture in forty-three years:

Article.	1864.	1870.	1876.	1906.
Wheat	\$51,948,500	\$79,148,800	\$112,860,500	\$159,018,800
Barley	7,905,100	13,780,700	18,238,300	27,600,200
Oats	8,895,900	21,323,100	22,485,700	22,060,100
Maize	9,625,900	28,179,100	62,041,000	58,265,200
Other grain	4,579,900	7,291,000	12,751,700	18,036,800
Wheat flour	13,782,400	16,467,300	23,074,700	33,176,200
Other flour, including farina	19,000	99,300	693,100	12,180,500
Total	96,756,700	166,289,300	252,145,000	330,337,800

INDIA.

AN EFFORT TO ESTABLISH AN AMERICAN MODEL FARM.

Consul-General William H. Michael, of Calcutta, furnishes the following information as to efforts to promote improved agriculture in India:

Recently I made an automobile trip into the estate of the Maharajah of Burdwan, for the purpose of examining a piece of land to be used in exploiting American manufactured agricultural implements. An American company had requested me to secure a desirable piece of land, and to give an estimate of the cost of conducting a "model farm" and carrying out a scheme for the exploitation of American farming machinery and implements. I found the land free from rocks or other obstacles, and in fairly good condition for crops. The maharajah was anxious to have the experiment tried, and endeavored to persuade the ryots, or farmers, having leases on the land to give up their contracts for the purposes of the experiment. The land I looked at, and all of the tillable land of the estate, is held under contracts or leases by the ryots. Their individual holdings, as a rule, amount to 1 begah, or about one-third of an acre. On this small patch of land the ryot raises a crop of jute, a crop of paddy, or rice, and one other crop of his selecting. From these crops he realizes about 125 rupees, or a little over \$45. The rent he pays for the begah of land is from 2 to 4 rupees, or 67 cents to \$1.33, which would be from \$1.98 to \$3.99 per acre. The ryot is able to live on this income and save some money. He uses the crudest implements, and does his work, from the preparation of the soil to the last handling of the product, just as his forbears did more than a thousand years ago.

NOT EASY TO GET LAND.

My proposition was explained to the ryots, but they shook their heads and were quite in doubt as to the wisdom of giving up their leases even for three years, notwithstanding they were assured that they would be given as much jute and paddy and other products of the land as if they farmed it themselves; and would also have the land returned to them in better condition for crops at the end of the experiment than when "Sahib" took it. As an inducement for them to surrender their leases for the time required the maharajah told them that they might have other land near by that needed clearing, but which would be brought under cultivation within a few weeks. Still they hesitated, and finally said that they could not decide until they had had a "baithak" or "pow-wow" of all the Indian ryots concerned. The agent of the maharajah, however, was inclined to believe that the proposition would be rejected.

Thus it will be seen that it is not so easy a thing as might at first be supposed to start an "American model farm" in India. I am still trying nevertheless and am of the opinion that I shall succeed if the company interested or any other firm will back up the effort. The maharajah of Burdwan and the maharajah of Cooch Behar are both anxious to see such experiment made as suggested, and are both convinced that it would result in opening a trade for American agricultural implements and also would open to India a new era in farming methods which, they say, is greatly to be desired.

A COFFEE-GROWING PROPOSITION.

The maharajah of Cooch Behar is anxious to have an American firm establish a model farm on his estates which lie up near the Himalaya Mountains, where almost anything can be grown, but where tobacco and tea culture offer the best results. He is very desirous of having a young man thoroughly familiar with tobacco culture and curing to take what quantity of land he might desire in the most eligible location on his vast estate, and make a model tobacco farm and teach the natives how to grow tobacco and cure it in the way it is done in Virginia. He will make it an object to the right person who cares to undertake to carry out the scheme. I am satisfied from my inquiries and investigation that the best part of India in which to open a model farm for the exploitation of farm machinery used in seeding, harvesting, and threshing wheat and other small grains is the irrigated districts of which there is a large area, and where wheat can be grown to perfection, and where modern machinery could be used to the best advantage. To carry out the plan suggested, will require good judgment, considerable time, and a reasonable amount of money. In the long run it would pay American manufacturers of farming implements and machinery to take hold of the matter in earnest and carry it to success.

COOPERATIVE SOCIETIES IN THE PUNJAB.

The Punjab administration records that the results of the cooperative credit societies' movement in the province have been most encouraging. By March 31, 1906, the societies registered numbered 151. The Punjab societies fall for the most part under three types. The panjaware type obtains where the village community manages the

common land of the village and applies the income to the improvement of the land, reducing the mortgages of members and to making loans. In the mianwali type, the capital consists of voluntary subscriptions in grain not returnable for ten years. The grain is partly kept for seed advances and the interest charged and other profits form the permanent indivisible capital of the society. The third form has no share capital, and operates with fixed money deposits bearing interest which it uses for lending out to members at higher rates of interest than that allowed to depositors. A combination of the last two types is said to seem the most popular in the Punjab.

RUBBER CULTIVATION IN BURMA.

Rubber cultivation is expected to develop into a very profitable industry in Burma, where exceptionally favorable terms are being offered by the government to the pioneers of the industry in the way of grants and leases of lands. So far as rubber grants have yet been made it appears that Meargui and Tungoo, in the neighborhood of Shwegyin, are the localities most in favor at present with applicants for such grants. The official view is that when the special rubber rules—under which the area granted or leased may extend to 1,200 acres without any limitation as to the nationality of the grantee or lessee—have been longer in operation, large increase in the area granted or leased may be expected in the Tenasserin division, in which they are only at present in force. As regards operations already started, it is stated that a Rangoon mercantile firm has cleared over 600 acres near Shwegyin for rubber cultivation and will also take up a much larger area in due course.

CINCHONA CULTURE.

The Indian Trade Journal says that the exports of cinchona bark from India during recent years has continued to decline. The amount in the year ended March 31, 1902, was 1,917,259 pounds, worth \$1,544,000, and only 916,360 pounds, worth \$79,000, in the year ended March 31, 1906, while for the ten months ended January 31, 1907, the exports were but 422,758 pounds, valued at \$30,000.

The chief cause of this falling off seems to be the increased cultivation of cinchona in Java, which is said to produce about 90 per cent of the world's supply. During the past three or four years the island of Java has increased its output out of all proportion to the demand, with the consequence that the unit of bark at the Amsterdam auctions fell to an unprecedentedly low figure last year. In fact the exports of cinchona bark from Java increased from 12,068,718 pounds in 1900 to close on 16,500,000 pounds in 1905. The figures for 1906 are just to hand and show a falling off of nearly 2,000,000 pounds from the previous year's exports. During the past two years the price of sulphate of quinine dropped from 34 cents to as low as 16 cents per ounce in November, 1906, though it recovered to 20 cents per ounce at the beginning of the present year.

EXPERIMENTAL FARMS AND INCREASED WAGES IN FIELD AND FACTORY.

The total area under cultivation in the Northwest Frontier Province during 1905-6 was something over 2,500,000 acres, nearly one-half being cultivated directly by the owners. Wheat, the staple of the province, was cultivated on nearly a million acres. Agricultural im-

provement has been taken in hand in the province. The first move will be the establishment of two experimental farms, one for agricultural and one for irrigation experiments, in the Peshwar district. Agricultural experiments carried out at Banum demonstrate that imported seed yields a far better outturn than the local varieties, which have, it is thought, probably degenerated from interbreeding, and that the local system of irrigation is excessively wasteful, and that superior crops can be secured by a less number of waterings than the people are in the habit of giving.

The Central Provinces' Blue Book remarks that in all the manufacturing districts the wages of unskilled labor have now risen much above the rates in force a few years ago, and agricultural laborers, as well as those employed in factories or on public works, command a much higher wage than formerly. The increased demand for labor with, as its necessary consequence, the increased remuneration of the laborer is said to be a very striking feature in the economic history of the province at the present time. The laborer is reported to be in a strong position, and while the present condition of affairs lasts it is unlikely that there will be any serious complaints of overwork or ill treatment in the factories.

It may be observed that there is a large opportunity for the increase of wages in the Central Provinces as, indeed, all over India, where men work for 18 cents a day, women perform menial labor for 8 to 12 cents a day and children work for 4 to 8 cents a day.

DRINK TRADE.

ITALY.

EXPORTATION OF WINE—COMBATING THE USE OF ALCOHOL.

Consul J. E. Dunning supplies the following information from Milan on wine and alcoholism in Italy:

During the year 1906 Italian wine exported to England further diminished, the shipments having dropped from 255,725 gallons in 1905 to 243,244 gallons in 1906. Ten years ago such exportations amounted to 500,000 gallons, and it appears in a communication from the Italian Chamber of Commerce in London that the fault lies with the shippers, who attempt to send wine which is rough and uneven in quality, immature in age, and unsuited to the critical English taste. It is reported to the Milan trade that consumption of Italian wines in England is now confined largely to the Italian colonies there and that most of the stock exported from the local vineyards is diluted before being served to the English trade. The consulate has several times noted similar complaints in various foreign wine fields against the Italian shippers, and again offers the suggestion for the consideration of the California and New York vintners. It appears from an inquiry made by the consulate that while the export of Italian wines to England has diminished, that of French wines has increased, especially in the case of clarets, of which, in 1906, 150,000 gallons were imported more than the total entered in 1905. [The total imports of still wines into the United Kingdom in 1906 for home

consumption amounted to 12,328,691 gallons, an increase of 381,458 gallons over the previous year.—B. of M.]

The Italian commission appointed to study the problem of abandoned agricultural districts in Italy has reported in favor of allowing free importations of American vines into such districts for a period of seven years.

There has been organized in Milan a popular league against alcoholism, which has for its object "the combating of alcoholism and the prevention of its evil consequences." This is the first temperance effort in a country where, comparatively speaking, intoxication from hard liquors is nearly unknown, but into which the use of absinthe and vermouth mixtures is making rapid headway. The league intends to devote itself to disseminating among the lower classes information as to the simple rules of hygiene, together with rules for physical development, healthful recreation, etc., and will undertake to influence legislation to these ends. Membership in the league is secured by the payment of 5 cents per year and assisting in the circulation of its principles. It is supported by the most serious thinkers and social scientists in Milan.

MADEIRA.

DECREASING WINE SALES DUE IN PART TO SPUIOUS IMITATIONS.

Consul Maxwell Blake, of Funchal, reports that Madeira wine, once almost an indispensable to the tables of the fashionable, has declined in favor of late years along with many other fine old wines. He says further:

In England, where at one time such enormous quantities of it were consumed, the demand has diminished until now it is but a fraction of what it formerly was, while that shipped to the United States is relatively insignificant (amounting in value to about \$40,000 in 1905) when compared with what went there from this island one hundred years ago. The countries where it is still appreciated and consumed without diminution of quantity are Norway, Sweden, and Russia, regions where, from their climatic peculiarities, its well-known quality of heaviness, so frequently objected to in more southern markets, finds especial favor. The Government of Russia, however, in its new tariff scheme has lately embargoed this wine with the almost prohibitive duty of \$250 per pipe (110 gallons), a burden very threatening to its future market.

It is rather an extreme comparison to contrast the present export, amounting to 6,000 pipes, with the 22,000 pipes shipped under the abnormal conditions of the Napoleonic wars, a time when the French ports were closed and the viticulturists of all Europe had practically abandoned their vineyards. The present export of 6,000 pipes is not far below a fair average for the last hundred years, the results of the decline of the trade being much more apparent in the inferior quality now in demand than in the actual quantity exported.

VARIETIES AND PROCESSES OF MANUFACTURE.

Not the least interesting thing about Madeira wine is the process by which it is made. The grapes, after having been gathered by the women and children, are carried in large shoulder baskets to the

"lagar," a round wooden vat of variable dimensions. When there is a sufficient accumulation of grapes, a group of bare-legged men leap in upon this mass and begin a slow treading motion, which soon gives way to a more rapid backward-and-forward movement, generally to the accompaniment of some musical instrument and native song. As the juice is extracted it is caught in hogsheads, from which it is put into goat skins and immediately carried off to the wine stores in Funchal.

Arriving here it is piped off into casks, stored into well-sealed chambers, and subjected for a period of several weeks to an evenly sustained degree of artificial heat, a comparatively modern process, adopted in lieu of the more expensive method that obtained in former times of sending it off on voyages across the equator, a journey which was always thought to add something to its flavor. After the wine is taken from the "estufas," as it is called, a limited quantity of spirit is introduced, and after being treated and blended in other ways it is put by in stores to age.

The vintage lasts from August to October and employs about 25,000 laborers. The exports on an average annually amount in value to \$1,000,000. Perhaps one-third of the wine sold in America and elsewhere as Madeira is produced in other countries. Only last summer a wrecked Italian steamer was thrown upon the shores of this island with a cargo of "Madeira" wine in its hulk direct from the vineyards of Spain and southern France. This wine was in transit to the markets of the United States.

JAPAN.

BEER BREWING INDUSTRY GROWING TO LARGE PROPORTIONS.

Consul-General H. B. Miller, of Yokohama, in reviewing the history of beer brewing in Japan, says that it dates back but some twenty years, and that its start, in common with many other enterprises later developed by the Japanese, was given by foreigners who aimed first to satisfy the requirements of the foreign residents without perhaps foreseeing the extent of the demand for the commodity among the Japanese themselves. Mr. Miller traces the development of the industry, as follows;

The Kirin Brewery was established in Yokohama in 1885, the company registering in Victoria, Hongkong, as British, under the title Japan Brewery Company (Limited). The master brewers have always been German, and there are at present three Germans connected with the brewery, though they are likely to be supplanted now that the business has been sold to Japanese, who will doubtless be able to do more with it than the foreign owners have lately accomplished. The selling price is given as \$1,000,000. The well-known trade-mark (sample filed at the Bureau of Manufactures) will probably be retained. The last dividend of the company was at the rate of 20 per cent per annum.

Following the lead of the foreigner and to secure a share of the growing trade, such breweries as the Asahi, Yebisu, Sapporo, Osaka, Kabuto, and Tokyo came into existence. As illustrating the growth of the younger companies, the Sapporo brewery increased its pro-

duction from 235,302 gallons in 1897 to 954,706 gallons in 1904. The growth of the industry was at the rate of 30 to 40 per cent per annum between 1894 and 1901, when its rapid development received a check in the imposition of a tax of \$3.50 per koku (koku=39.7 imperial gallons), which tax is still levied, together with a war tax of 50 cents per koku. The output of all the breweries increased from 2,688,364 gallons in 1897 to 6,000,000 gallons in 1906. In 1905 beer was exported to the value of \$688,723, while in 1906 22,988 dozen pint bottles, with a value of \$15,797; 655,224 dozen quart bottles, worth \$739,335, and 64,938 casks, worth \$26,696, making a total of \$781,828, were exported. China has always taken the bulk of the exports, although Korea has been consuming an increasing quantity year by year, in 1905 taking a value of \$199,585, as against \$15,463 in 1899.

JAPAN SUPPLIES MANCHURIA WITH BEER.

The greater part of the export to China goes to Manchuria, comparatively little entering northern and central China. The establishing of foreign breweries at Shanghai and in northern China, such as the Anglo-German Brewing Company, at Kiaochow, has interfered and will continue to interfere somewhat with the sale of Japanese beers in their local districts, but in Korea and Manchuria there is an opportunity which the Japanese are not slow to grasp. The relatively low price of the beverage, the nearness of the market, and cheap transportation, and the fact that the Japanese already in those districts will use and introduce among the native element a demand for the commodity, give Japan every advantage over foreign competition. Further, there is in contemplation the establishing of a branch brewery in Manchuria, being an outcome of the formation of the Dai Nippon Brewery Company. Branch breweries for Tairen (Dalny) and Korea are also contemplated, to be started in 1907.

The value of advertising is well understood, few native products having been better brought to the notice of the public than these. There are few places in Japan where beer can not be had, for while it will never entirely supplant the national beverage, saké, it is winning a very important position. The bottled beer is sold at retail at 60 cents per dozen for the pints and \$1.15 for the quarts, but is seldom retailed from the cask.

IMPORTATION OF BEER AND MALT.

There is but little demand in this country for foreign beers. The small amount imported does not warrant a separate notice in the customs returns, but is bracketed with ale, stout, and porter, of which the total value of imports for 1903 was \$11,447, for 1904 \$11,748, and for 1905 \$12,430. In 1905 Great Britain furnished \$8,982 worth, the United States \$1,823 worth, and Germany \$1,275 worth. The import tariff imposes a duty of 5 cents per liter (1.0567 quarts).

The importation of malt in 1903 was 3,544,394 pounds, valued at \$135,615; in 1904, 5,073,118 pounds, at \$190,668; and in 1905, 5,485,748 pounds, at \$206,826; of the malt imports for 1905, the United States furnished 504,761 pounds. Importations for 1906 totaled 8,889,027 pounds, having a value of \$324,966, a considerable increase over previous years. Particulars as to origin are not yet available. It would seem as though the United States, with its great grain fields

near the Pacific, might make a better showing than that of a very poor third.

The importation of beer brewing machinery has warranted special mention in the customs returns since 1898, when the value of imports was given at \$50,314, but that such machinery was imported at a much earlier date, under the head of "All other machinery," is obvious, since breweries have been in active operation since 1886. In 1900, of a value of \$75,908, but \$5,634 came from the United States, the balance being from Germany. In 1905, France furnished a value of \$20,414, Great Britain \$4,976, but \$1,207 worth came from Germany, and \$787 only from the United States. France superseded Germany, while the United States hardly made a showing. The entire importation of such machinery for 1906 was but \$24,280, yet under the general head of "Machinery and engines" for last year (no itemized data being yet available), the United States is second with a value of \$3,048,384, Great Britain being first, with \$4,990,293, and Germany third, with \$1,029,618.

For the establishing of the new breweries, and for renewals and extensions of the growing concerns, there will be a considerable demand for machinery, of which the United States should supply a large share. A list of the general importers of machinery has previously been furnished to the Bureau of Manufactures.

PURCHASES OF HOPS.

The importation of hops into Japan has been principally from Germany, and has shown a steady increase in late years, the imports for the past four years having been: In 1903, 146,263 pounds, worth \$57,342; in 1904, 188,816 pounds, worth \$102,441; in 1905, 192,752 pounds, worth \$94,276; and in 1906, 352,144 pounds, worth \$93,981.^a Of the 1905 imports, Germany supplied 163,547 pounds, the United States 20,557 pounds, Austria-Hungary 6,800 pounds, and Great Britain 1,548 pounds. Some hops are grown in Japan in the Hokkaido, but the quantity is inconsiderable and the quality inferior, those imported from Germany being regarded as the best.

The old tariff imposed tax on hops of approximately \$9.58^b per 133 pounds (which includes the special war tax), but the new tariff, in effect October 1, 1906, calls^c for approximately \$14.45 per 133 pounds. Germany, however, has had and retains the advantage of a conventional tariff, which does not expire until 1911, calling for but \$3.26^c per 133 pounds, and in this the United States, under the "most favored nation clause," participates.

The import tariff imposes a duty of \$1 per 133 pounds on malt, and on beer-brewing machinery, 15 per cent ad valorem.

^a The figures are given as reported by the consul-general. It may be stated, however, that the export prices of hops in the United States in 1905 varied from 17.7 to 26.5 cents per pound, and in 1906 from 13.7 to 28.2 cents per pound.—B. of M.

^b According to the official edition of the tariff of Japan, on file in the Bureau of Manufactures, the old rate on hops was 0.092 yen per klu plus special war tax of 0.052 yen per kin, making a total of 14.40 yen (\$7.20) per 100 kin (133 pounds).

^c According to the official edition of the tariff of Japan, on file in the Bureau of Manufactures, the conventional rate on hops is 0.029 yen per kin, or about \$1.45 per 133 pounds.

TRANSPORTATION.

WORLD'S STEAMSHIP LINES.

STRAITS SETTLEMENTS.

SHIPPING COMBINATION CHIEF OBSTACLE TO TRADE DEVELOPMENT.

The following report from Consul-General David F. Wilber, of Singapore, shows that shipments of all products from the Atlantic coast ports of the United States to and from oriental ports via the Suez Canal are controlled by slow and irregular steamship lines under foreign flags:

All shippers of East India products to Atlantic ports in the United States, where 90 per cent of all such shipments go, are forced to ship by lines in the combine on account of the rebates and conditions. At the end of every six months all shippers who have not patronized vessels of lines outside the conference are entitled to a rebate according to the following circular, which was sent to shippers of Straits produce by an agent of one of the lines in the combine:

To those exporters from Singapore and Penang to New York or Boston by direct steamers via Suez Canal who, from November 1, 1905, to April 30, 1906 [the same conditions are still in force], may have found it to their interest to confine their support and shipments, during that period, to steamers loaded by us we shall be happy to allow a rebate of 5 per cent on the freight paid, as per bill of lading, said rebate to be payable on the freight to terminal port only, all arbitraries to points beyond that port to be free of rebate. To those who, on October 31, 1906, may have found it to their interest to confine their support and shipments during the whole twelve months to the said steamers we will allow a further 5 per cent on freights contributed up to April 30, 1906, and 5 per cent on those from that date to October 31, 1906. To those who on April 30, 1907, may have found it to their interest to confine their support and shipments during the previous eighteen months to the said steamers we will allow an additional 5 per cent on freights contributed during the six months ending October 31, 1906.

Until further notice shipments made by steamers belonging to the Hamburg Amerika Linie, Indra Line (Limited), Standard Oil Company of New York, Dampfschiffs Rhederel "Union," Actien Gesellschaft, American and Oriental Line, or steamers loaded by Messrs. Shewan Tomes & Co., and Dodwell & Co. (Limited), will not invalidate claims for the above. No "returns" will be payable on freight contributed by rice, hemp, and treasure or cocoanut oil. Exporters applying for the returns, which will be payable at port of shipment on and after January 1, 1906, July 1, 1906, and January 1, 1907, respectively, must fill up and sign forms which can be obtained from the agents.

* * * * *

By the conditions imposed in the foregoing circular, at the end of a year it results in a rebate of 10 per cent on shipments for the first six months, 5 per cent on those of the second six months, and a credit of 5 per cent for the same period, which is no doubt held back as additional means to compel shippers to remain faithful and patronize no vessels outside of the combine. A printed form is given to shippers

at the end of each six months, which they are required to fill up and sign in order to obtain the rebate to which they are entitled.

EFFECTS OF THE COMBINE.

Prior to the organization of this shipping combine, owing to competition, rates from here to New York in some instances were one-half what they are now, and in all instances much lower, and 50 to 75 per cent lower than rates to England and the Continent. Now the rates to New York are the same as to English and continental ports, except on tin, rattans, jeletong, gums in cases, and arecanuts in bags. These lines also handle the bulk of the freight between New York, Boston, Manila, Hongkong, China, and Japan.

Since the writer became consul here an American steamer bound from Manila to New York, partly loaded, called at this port and endeavored to complete her cargo. While there was plenty of freight for Boston and New York ready for shipment no shipper dare take advantage of the opportunity for fear of the loss of rebate on former shipments. All shippers of produce, outside of those who are agents for the vessels which are in the combine, would no doubt welcome a fast regular line through the Suez Canal to New York. But such a line must be independent of any combination and furnish sailings sufficiently frequent to guarantee shippers that all their cargo will be taken care of before they would dare break away from the combine. American trade throughout India and this part of the world has been seriously handicapped for years by the slow, irregular, and unsatisfactory shipping facilities.

A representative of a large New York export house said to the writer the other day that he had had American goods lying in the hold of one of these steamers in New York for more than thirty days after the loading permit had been issued before the vessel sailed. This is one of many complaints of similar character made by importers of American goods here. No one can tell when goods ordered from the United States will arrive, and for this reason loss of orders are frequent.

QUICKER TIME VIA EUROPEAN LINES.

It is sufficient to say in any case they can be delivered by the fast regular lines from England and the Continent in less than half the time it takes from New York, and, on account of these regular lines from Europe, a representative can ordinarily guarantee deliveries of goods which are held in stock. Even the present high conference rates from New York to Manila are no more than the bare water rate from San Francisco, leaving out the cost of transportation to San Francisco by rail from the East and Middle West and not considering the liability of breakage at transfer points on the Pacific route. The conference rate to Singapore is \$1 gold per ton less on regular cargo from New York via Suez, with no transfers after leaving New York, than the bare water rate from San Francisco, with transfer at Hongkong. It is evident that the American manufacturers and producers east of the Rocky Mountains must, in order to compete in transportation with those of Europe, use the New York route via Suez Canal in order to develop American trade between Suez and the Philippine Islands.

DIRECT AMERICAN LINE NEEDED.

What is absolutely necessary in order to build up American trade east of Suez is the establishment of a regular fast American line of steamships from New York to Manila, stopping at Indian ports, Penang, and Singapore, connecting here with the vast number of coast lines running to Siam, Java, Sumatra, Borneo, and the other islands of the Netherlands and southern Philippines. Foreign capital will not give us such a service with which to build up American trade, but will give us all of the present service necessary in order to hold the business and prevent the establishment of a regular American line to promote the sale of American products and manufactured goods in this part of the world. The time will come when a share of this trade will be needed as an outlet for our fast-increasing production. Facilities must be provided to compete with other countries, and transportation is one of the most important. Resident American representatives are also needed, but the present transportation facilities offer little encouragement to manufacturers and producers to locate men in a field where such an obstacle exists.

SHIPPING REBATES AND LOCAL STEAMERS.

The following from the Singapore Free Press shows further development of this rebate system:

The public are by this time fairly well aware of the system of rebates on freight charges worked by what is known as the Homeward Shipping Conference. However profitable that may be to the companies and firms constituting the aforesaid combine, it is not questioned that the joint monopoly endeavored to be thus created has been, and continues to be, prejudicial to the general shipping interests of the port by the elimination of the competition of tramp steamers, now so largely wiped out from our shipping lists. It is, however, a new departure to see that this rebate system is now being applied to the working of local steamers distributing or collecting trade between Singapore and Bangkok. And when we say "local steamers," that refers to the line which is now in the hands of the Norddeutscher Lloyd as a subsidiary feeder to their regular liners running between the Far East and Europe.

JAPAN.

NEW STEAMSHIP COMBINE—NEARLY FIVE MILLIONS IN SUBSIDIES.

The following report, covering the new steamship combine, the composition of the merchant marine, and the subsidies paid by the Government to aid shipbuilding and the merchant marine of Japan, is furnished by Consul-General Henry B. Miller, of Yokohama:

The annual appropriation for promoting shipping and aiding lines of the merchant marine was for the fiscal year ended March 31, 1907, and for previous years \$3,526,559, and for shipbuilding \$399,250. This has been increased for the current fiscal year and several succeeding years by \$784,136 per annum in subsidies for various lines. More than half of this increase goes to sustain old and establish new lines to China.

The great success that Japan will achieve in the expansion of her merchant marine will be in securing a strong position in the coasting and river transportation of China. She is building up all of these branch lines with such success that they will all become feeders to her main lines to Europe, Australia, America, Philippines, etc. The

great interior of China can be reached by river transportation, and Japan's merchant marine is being extended, expanded, and constructed not only to command the large and small seaports, but to penetrate as far as possible into the heart of China by river service.

THE NEW STEAMSHIP COMBINE.

The scheme to incorporate the Yangtze services of the four Japanese steamship companies—the Nippon Yusen Kwaisha (Japan Mail Steamship Company), the Osaka Shsen Kwaisha (Osaka Mercantile Steamship Company), the Daito Steamship Company, and the Hunan Steamship Company—has matured. The capital of the new company will be \$6,000,000 gold, made up as follows: Capital of the Daito Company, with 15 steam tugs and 15 lighters, \$50,000; paid-up capital of the Hunan Steamship Company, with 3 steamships of a total tonnage of 3,370 tons, \$375,000; Osaka Mercantile Steamship Company, with 6 steamers on the Yangtze and other property, \$2,000,000; Japan Mail Steamship Company, with 2 steamers and other property, \$1,500,000. The balance, \$2,075,000, is offered to the public, which shows the greatest interest in the combine and will quickly subscribe for that amount.

When the shares are fully subscribed, 4 steamers of over 2,000 tons each will be built, and the services will be extended to Hongkong, Canton, Tairen (Dalny), and other north and south China ports. The name of the new company will be the Nisshin Kisen Kwaisha (Japan-China Steamship Company).

A Government subsidy of about \$400,000, the estimate for which is included in the budget for the coming fiscal year, now before the Diet, will be granted for five years. Subsidies are now granted to the four companies on the Yangtze service to the total amount of \$250,000.

PLANS FOR SECURING FREIGHTS.

It is pointed out that the business of the new company will be exploited on a different plan from that adopted by the existing companies, for whereas they, generally speaking, principally engage in the passenger service, it is intended by the new combine to make the cargo-carrying trade its chief business. At present, in connection with the local as well as the foreign services of the principal Japanese steamship companies, calls are only made at the most important ports, and it is believed by the promoters of the new steamship concern that a large volume of business can be created by their steamers calling at small ports now almost entirely neglected by the existing companies.

That one of the aims of the new undertaking is to compete severely with some of the foreign steamers trading in Far Eastern waters there can be little doubt, and the competition between the new company and the foreign shipping companies is sure to be even keener than that between it and the other Japanese concerns. The promoters of the new combine point out that rice from Siam and Rangoon, sugar from Java, phosphatic rock from the Pacific islands, etc., are all at present brought to Japan by foreign steamers, and it is such trade that the company will seek to develop and promote. They anticipate success in this direction by reason of more economical working than can be employed on foreign vessels, and also on account of the anticipated Government subsidy, by which they hope to make good any losses that may be incurred.

In Japan this new company will come next in order of tonnage to the Nippon Yusen Kwaisha (Japan Mail Steamship Company), the largest steamship company, and will be a power in shipping circles both at home and abroad.

SHIPS IN SERVICE.

From investigations made by the department of communications the following figures have been obtained, showing the state of the mercantile marine of Japan at the close of the year 1906:

Tonnage classification.	Steamships.			Sailing vessels, foreign model.		
	Number.	Tonnage.		Number.	Tonnage.	
		Gross.	Registered.		Gross.	Registered.
20 to 100.....	638	31,559	17,138	2,789	173,421	162,991
100 to 300.....	262	44,613	26,250	1,249	168,114	157,967
300 to 500.....	91	35,434	21,700	4	1,613	1,516
500 to 1,000.....	134	96,147	59,674	1	825	776
1,000 to 2,000.....	131	198,527	112,524			
2,000 to 3,000.....	108	263,748	170,989	1	2,287	1,418
3,000 to 4,000.....	42	142,490	92,160			
4,000 to 5,000.....	13	57,480	38,415			
5,000 to 6,000.....	6	31,972	19,462			
6,000 to 7,000.....	20	125,021	76,303			
7,000 and over.....	1	7,643	4,627			
Total.....	1,446	1,034,634	639,242	4,044	346,260	324,668

In addition to the sailing vessels of foreign model given in the foregoing statement there are 1,162 vessels of Japanese model, of a total carrying capacity of about 447,521 tons.

SHIP BUILDING ACTIVITY.

One salient fact brought out by the foregoing table is the increase in the number of large steamers. Japan has now no less than twenty steamers of from 6,000 to 7,000 tons. The dockyards at Nagasaki, Kobe, and Uruga are very busy; they have 60,000 tons of vessels on the stocks, and 50,000 tons more are in prospect. That there should be such activity in building is remarkable, for the additions made to the marine during the war amounted to no less than 350,000 tons, bringing the total for steamers to a figure above 1,000,000 tons, and the result has been keen competition, so that many complaints are heard about cheap freights. The Nippon Yusen Kwaisha (Japan Steamship Company), formed by a union of shipowners other than the existing three large companies, with its capital of \$10,000,000, is about to add several large vessels to its fleet, and altogether it may be expected that freights will be cheaper before they are dearer. As examples of the effect already produced by competition, it may be mentioned that whereas a ton of coal used to cost \$1.25 for transportation from Moji to Yokohama, the charge fell at one time to 25 cents, and though it recently rose to 35 cents, it is only one-half the rate ruling before the late war. An agreement as to the rate among all the shipowners seems to be the only remedy to improve the situation, and much talk of such an agreement is now heard.

The Nippon Yusen Kwaisha is contemplating establishing a regular line between Japan and New York, via Suez, after the completion

of the six new steamers, of 8,000 tons each, now building at the Nagasaki and Kobe shipbuilding yards.

SUBSIDIES FOR CURRENT YEAR.

In the budget for the fiscal year ending March 31, 1908, the regular annual appropriation for aids and subventions for various forms and lines of the merchant marine, previously arranged and fixed, are as follows:

Line to Australia.....	\$236,546	Okinawa Line.....	\$2,700
Ports of call (extension of the above).....	25,000	Encouragement to navigation.....	769,002
Line to Europe.....	1,336,948	Encouragement to shipbuilding.....	399,250
Seattle Line.....	327,015	Deep-sea fishing fleet.....	53,408
San Francisco Line.....	506,940		
Far-Eastern-Sea Line.....	265,000		
Okinawa-Saki Line.....	4,500	Total.....	3,928,309

In addition to the foregoing the following aids and subventions have been recommended by the Cabinet and approved by the Diet now in session: Education of seamen, \$2,500; relief of disasters at sea, \$10,000; subsidy for steamship service in Chinese waters, \$400,000; steamship service to Dalny, \$70,000. These four amounts will be granted each year for five consecutive years beginning with the fiscal year ending March 31, 1908.

A subsidy of \$99,756 a year will also be granted for four consecutive years to the steamship line to Hokkaido. And the following six subsidies will be granted for three consecutive years: Steamship line to Izu Islands, \$3,780; service in Japanese waters, \$175,500; service to Bonin Islands, \$7,740; services in Kagoshima Ken to islands, \$11,400; services among Bonin Islands, \$760; service to Oki Islands, \$2,700. The new aids and subsidies to the merchant marine for the fiscal year 1908 thus amounts to \$784,136. This, added to those previously fixed, makes the total subsidies \$4,709,945.

INDIA.

BOMBAY-TRIESTE STEAMSHIP COMMUNICATION.

Consul E. Haldeman Dennison, of Bombay, reports that, according to the terms of a new agreement which has been concluded between the Austrian Government and the Austrian-Lloyd, the Lloyd steamers will make 19 double voyages to Bombay from Trieste.

On 5 of these Karachi is to be the port of call, and the duration of the voyage from 16 to 19 days; 12 voyages of 41 days' duration are to be made to Calcutta, and 12 to Kobe, on 6 of which Bombay is to be a port of call on the outward passage. On the homeward passage 8 calls are to be made at Bombay and Karachi, respectively, and 4 at Calcutta. The duration of the whole voyage is to be from 66 to 68 days for the outward passage and from 71 to 75 days for the return journey.

A number of new services have been arranged for the Mediterranean and the Levant. Among these are a weekly express service between Brindisi and Alexandria, a weekly service from Trieste via Beirut and Alexandria to Messina, with alternate calls at Jaffa and Port Said.

BRAZIL.

THE GOVERNMENT SEEKS IMMIGRANTS IN EUROPE AND ASIA.

Mr. George Lorillard, American chargé d'affaires at Petropolis, Brazil, transmits a report on the general appropriation law of Brazil for the year 1907, which has previously been covered under several headings in Consular and Trade Reports. Some of the recent developments of the law are gleaned from Mr. Lorillard's report, as follows:

As a result of the authorization of a credit of \$6,000,000 for the promotion of immigration, special agents have been sent by the Government to Italy and Hungary in order to stimulate emigration from those countries to Brazil.

Arrangements have almost been concluded with a British steamship line to establish a monthly service between Japan and Santos, Brazil, via Cape Town. This comes under the authorization to the President "to grant a maximum subsidy of \$500,000 per annum to any shipping company which shall establish a regular service between Brazil and Japan for the development of trade between the two countries, and the carrying of immigrants." By thus including South Africa in the steamship service it is hoped to develop the sale of Brazilian coffee in that country.

For a number of years the State of Sao Paulo has been endeavoring to persuade Japanese to emigrate there, believing that they would be an excellent substitute on the coffee plantations for the Italians, who have stopped coming to Brazil in any great numbers.

AUSTRALIA.

SHORTENING THE TIME TO LONDON.

Consul-General J. P. Bray forwards the following extract from a Melbourne paper in regard to the consideration by the Australian government of an improved mail service to England:

Preliminary consideration is being given by the postmaster-general to the question of the improvement of the Vancouver mail service. At present a subsidy of \$321,000 is paid by Canada and Australia for a service which occupies 21 days from Sydney to Vancouver. The whole journey to London with employment of a 20-knot steamer from Sydney to Vancouver could be accomplished in 26½ days.

SWITZERLAND.

FOREIGN THROUGH BILLS OF LADING.

Consul George Gifford advises that through bills of lading are not signed in Basel for goods destined for oversea ports, except by the agents of the American Line, Messrs. Im Obersteg & Co. Other forwarding agents ship their goods accompanied by simple waybill (Frachtbrief) to the port of shipment, where the bill of lading is signed by the marine carrier. [A copy of the form used by the American Line is furnished by the consul and will be loaned to interested persons applying for it.]

RAILWAY SYSTEMS.

FRANCE.

LEADING LINES MANAGED UNDER GOVERNMENT RESTRICTIONS.

Consul-General F. H. Mason, of Paris, reporting on the great leading railway systems of France, says:

The Northern, Eastern, Western, Orleans, Midi, and the Paris-Lyon and Mediterranean, comprising with their various branches 25,013 miles of quadruple, double, and single tracked lines, are all owned and managed, under certain governmental restrictions, by corporations or stock companies under charters from the State, which reserves the option to buy and take over the lines of either company at the expiration of its concession. The oldest of these systems, the Western, was reconsolidated in 1855, and as its concession now expires the question is under discussion whether it shall be renewed or its property purchased and taken over by the Government.

The State railway lines in France, on the other hand, form a comparatively insignificant part of the whole system, but in view of the interest which attaches to governmental ownership and management of public utilities, a brief account of the French State railways may not be without value. They are limited to a main line from the Montparnasse station in Paris, over the tracks of the Western Railway Company, and southwestward to Bordeaux, with a network of branches extending to Angers, Nantes, Poitiers, La Rochelle, Angoulême, and other points, a total length of 1,811 miles, of which 84.5 miles are tracks used in common with trains of the Orleans Railway Company. [Map showing the State railway system of France on file at Bureau of Manufactures.]

Over this line and its branches there were operated in 1906 trains with an aggregate mileage, as follows: Passenger and mixed trains, 7,552,729 miles; freight trains, 3,301,278 miles; a total of 10,854,008 miles. From the last official report just published it appears that the total receipts for the traffic of the year and the expenses of operation were as follows: Receipts, \$10,537,800; expenses, \$7,911,841; net earnings, \$2,625,959. The details of the receipts are not yet accessible, but the relative proportion derived from passenger and freight traffic may be shown from the statistics of 1905, when the total earnings were \$10,296,534, divided as follows: From passengers, \$3,545,850; express freight, baggage, etc., \$1,367,790; and slow freight, \$5,382,894.

The number of locomotives in use during 1906 was 299 for passenger and 337 for freight service, a total of 636, being an increase of 49 since 1901. The fuel used was 57 per cent coal and 43 per cent briquets made of bituminous coal dust, and the average consumption was $13\frac{1}{2}$ kilograms (kilogram = 2.2046 pounds) per train kilometer (kilometer = 0.62137 of a mile), or approximately 47.5 pounds per train mile. There are several American-built locomotives in service on the State railways, but from all accounts they have not been found as efficient as French engines in respect to the relation between fuel consumption and service rendered.

The rates for passenger travel on the State railway are shown in the following example: Distance from Paris to Bordeaux, 380 miles, first-class fare, 3.41 cents per mile; second-class fare, 2.32 cents; and third-class fare, 1.52 cents. These rates are, however, subject to various discounts and concessions in special cases, the most important of which is the reduction on a return ticket, good for various periods, according to the length of the journey. The discount on the return ticket is based on distance, as follows: Up to 100 kilometers, 30 per cent of single-distance fare; 101 to 300 kilometers, 30 to 40 per cent; and over 300 kilometers, 40 per cent.

The State railway management also issues cheap summer excursion tickets from Paris to Les Sables d'Olonne and such seaside resorts on the southwestern coast, while the northern and western companies offer similar inducements to excursionists to the various northern bathing beaches from Calais to Cherbourg. The State railway lines carried in 1903, the last year for which complete statistics are available, 13,732,955 passengers, whose total journeys aggregated 556,308,473 passenger kilometers, and yielded a revenue for fares and excess baggage of \$4,485,452.

FREIGHT TARIFFS—PERSONS EMPLOYED.

The official freight tariffs of French State and corporate railways fill a volume 10 by 14 inches in size and contain 1,700 pages, and are too complicated to be understood or intelligently used except by experts. The rate on coal and iron on the State lines is 96 cents per ton for 100 kilometers (62.137 miles), if carried in a car of 4 tons, and 77 cents per ton for the same distance if carried in a car of 8 tons. The increase per 100 kilometers is about 28 cents. Wine in casks pays \$1.35 per ton for the first 100 kilometers, with a sliding-scale reduction as the length of haul increases.

The grand total of revenue on the State roads for the year was \$9,735,201. Against this there was charged for expenses of administration and operation, \$7,312,057, so that the net earnings for the year were \$2,623,145.

Especially interesting as a basis of comparison with American railroad management is the personnel or number of officials and employees of all classes required to administer and operate the State railway system in France. There is a grand total for administrative and operating force of 5,119 men to work 1,812 miles of railway and earn a net surplus over expenses of less than \$3,000,000 a year. There is in the general character of service on the State railway system speed and regularity of trains, cleanliness and comfort of cars, promptness and cheapness of freight service, and economy of management, no apparent superiority over the conditions which exist and the results which are attained by corporate management on the other leading railway systems of France.

ITALY.

ELECTRIC EXPRESS AND FREIGHT LINE FROM MILAN TO GENOA.

Consul J. E. Dunning reports that an electric railroad 85 miles in length and to cost \$47,000,000 is to be built between Genoa and Milan, the following being the particulars:

The electrical current will be generated by water power by three engines of 24,000 horsepower. To complete the line 19 tunnels will have to be built, the most important being 12 miles long, which will require six years in its construction. The cost of the road will be about \$500,000 per mile according to the estimate. The line will have a double track, the trains being hauled by electric locomotives. The latter will be combined with baggage cars, with two sets of trucks, having four motor axles, each axle of 300 horsepower, and will weigh 45 tons. With this force of 1,200 horsepower per locomotive they will be able to operate at the speed of about 54 miles an hour for the parts having a grade of 8 feet per thousand and at the speed of 80 miles an hour on the level. The trains will be run in three cars, each car carrying 50 persons—the whole train weighing 160 tons. These figures are for the express and local trains. The plan is to have them running from 4 o'clock in the morning till midnight. The express trains will run every two hours. The locals will run much oftener, and will collect passengers from the smaller towns and take them to the express station farther along the line, where passengers can transfer. All locals will, after leaving Milan, take all passengers collected from the smaller stations to the station of Tortona—the only express station—as well as those locals starting from Genoa. The express trains will take passengers from Milan to Genoa, or vice versa, in one and one-half hours, while the locals will require two and one-half hours. In this way there will be 20 trains per day, carrying an average of 6,000 persons.

The 70 to 100 freight trains to run each twenty-four hours will have combination locomotive and baggage cars of the same size and power as those of the passenger trains, and will pull 30 freight cars, each car weighing 22 tons, which includes 12 tons of goods on each car, so that the train will pull in all 700 tons. These trains will run at the speed of 20 miles an hour on the inclines, and about 35 miles an hour on the level.

To prevent accidents, there will be no grade crossings along the line, and 372 bridges must be built. The principal tunnel will be perforated from both ends at once, and at the same time in eight places along the lines, boring holes from above. In all, this tunnel will be constructed from ten borings at the same time. By the time this tunnel is ready the whole line will be finished.

TRAIN SPEED INDICATORS.

USED IN EUROPE TO PREVENT RAILWAY DISASTERS.

Consul Frank W. Mahin writes from Nottingham that shocking railway accidents in England during the past year, due to excessive speed at points where the rules required a reduction, has caused a demand that speed indicators be placed on locomotives of all passenger trains. The consul continues:

It is argued that the Salisbury accident would not have occurred if a speed indicator had been before the eye of the engineer. In the Grantham disaster, where the train should have stopped at the station, but rushed past and was derailed at a switch set for a branch line, the inquiry turned on the point whether the train brake had been set, but no one was alive who could answer. It is stated that

certain speed indicators, showing the air pressure in the brake reservoirs, would have made this clear. Such instruments, it is reasoned, not only help to explain accidents and to locate responsibility, but are manifestly a constant check upon engineers who might otherwise speed a train to disaster.

It is said to be a literal fact that not half a dozen English locomotives are provided with efficient modern recording speed indicators, whereas on the Continent about 20,000 are in use. There, it is said, they are practically compulsory on all passenger locomotives, and in some countries every main-line freight engine is also provided with one. A law in France, and laws about to be enacted by Holland and Belgium, require every passenger locomotive to be thus equipped within a given time. Speed indicators on the Continent, it is stated, are considered as important as steam gages on boilers and automatic brakes on trains. The engineer, it is reasoned, would no more disregard the speed indicator than the steam gage, and therefore only as the result of mental aberration could an accident occur from neglect of the railway company's speed rules.

EPPRESS RATES IN CANADA.

Consul-General Church Howe, of Montreal, calls attention to the following official order governing the express rates in Canada:

All express companies operating in Canada are now subject to the jurisdiction of the board of railway commissioners for Canada. Under the railway act no company shall carry any goods by express until their rates have been submitted to and approved of by the board. All rates, except joint rates of tolls between Canada and points outside of Canada, must be filed and approved before the 1st of May next. All other rates must be approved before July 1, 1907. As a general investigation of express matters is being held, those interested must file complaints in regard to excessive rates or other grievances they may have with the transportation department of the association at an early date.

MOTOR TRADE.

FRANCE.

A MACHINE TOOL MANUFACTORY ORGANIZED FOR SELF-PROTECTION.

Consul-General F. H. Mason, of Paris, reports that the dominant note of economic policy in France, which inspires in a marked degree not only the fiscal administration but the commercial and industrial development of the country, is a spirit of alert and enterprising self-defense, a determination to strengthen the barriers of protection at the frontiers, fill out the vacant places in the industrial system, and make France as nearly as possible independent of imported manufactures. The consul-general adds:

A recent report from this consulate described briefly the efforts which have been made to produce in France the harvesting and other agricultural machinery and implements which have hitherto been

imported so largely from the United States and Great Britain. The most recent manifestation of the same spirit has been the recent organization at Paris of an industrial corporation, under the presidency of M. de Dion, with a capital of 6,000,000 francs (\$1,158,000), to undertake the manufacture of machine tools, especially of the type which are essential in the manufacture of automobiles.

The original supremacy of French manufacturers, the perfection of their work in the construction of high-grade motor vehicles, is generally conceded. But within the past two or three years certain of the best makers in Great Britain, Belgium, Germany, and the United States have begun to compete seriously even in the best class of cars for touring and ordinary purposes. It becomes, therefore, evident that in order to maintain the competition and continue the present export of automobiles—which amounts in value, roughly, to 100,000,000 francs (\$19,300,000) per annum—French manufacturers must economize at every point and keep their industry as closely as possible within their own control.

Thus far the French automobile factories have been equipped to an important extent with machine tools imported from several countries, notably the United States and Germany. The official statistics do not classify separately machine tools used for automobile construction and for other purposes, but it is a matter of common knowledge that most of the automobile lathes, gear cutters, boring, milling, and finishing machines used by the French motor car manufacturers are of American or German origin.

IMPORTATION OF MACHINE TOOLS.

The French statistics show importations in 1905 of 12,174 metric tons of machine tools, valued at 18,261,653 francs (\$3,524,499), of which 6,125 tons, or about half, came from Germany, 2,424 tons from the United States, 2,159 tons from Great Britain, and the remainder from Belgium and Switzerland. These, however, are custom-house figures—correct in respect to weight, but far below the fact in respect to values. A financial authority, Le Credit Mutuel, estimates the actual value, including duties, of imported machine tools put into the French automobile manufacture in 1906 at 25,000,000 francs, or \$4,825,000.

To obviate this heavy drain upon the automobile industry, cheapen the cost of equipment, and keep the whole economy of that important branch of manufacture more completely within French control are the purposes of the new enterprise. The incorporators and stockholders include some of the best-known names in the French automobile manufacture, and its capital had been fully subscribed before the scheme became publicly known. It will establish works for the construction of such machine tools as are not protected by patents, and presumably seek to acquire rights to manufacture under such patents, domestic and foreign, as cover devices which are deemed essential. This will create the most dangerous competition that the machine tool makers of America have ever been called to meet in France. The import duty on such machinery ranges from 17 to 70 francs per 100 kilograms (\$3.28 to \$13.51 per 220 pounds) according to weight of machine, but the French tariff is a flexible enactment and can be modified to meet any existing or future relation between home supply and actual demand.

CANADA.

BECOMING POPULAR IN THE PROVINCE OF NEW BRUNSWICK.

Consul Gebhard Willrich, of St. John, reports that the first automobile, an \$800 runabout, was introduced into New Brunswick Province in 1903, the progress of the trade since that time having been as follows:

By the spring of 1905 the auto had made such an impression on the public that a law was passed by the Provincial Government similar in most respects to the laws regulating automobiling in the United States, limiting the speed and providing for the licensing and registration of the cars, their owners and drivers. The applications for registration under this law showed that there were then about 12 cars in the Province.

In the spring of 1906 the list of autos had again doubled, and their owners decided to organize and form an association for the promotion and development of the motor vehicle and cooperation in securing suitable legislation, especially in the furtherance of the construction and maintenance of good roads. This association met with very good success during the first year of its existence in securing considerable funds for the improvement of the highways of this Province, on which more money was spent, due to such efforts, in that one year than had been spent for many years prior to that time.

THIS SEASON'S SHOWING.

The amount of these funds thus secured during last year amounted to the sum of \$140,000, which expenditure has placed the public roads of the Province in a condition which is said to compare favorably with those of other and more thickly populated districts. The roads, especially along the St. John River, which presents scenery of unsurpassed beauty, are in excellent condition for automobiling. That this mode of locomotion is fast becoming popular in this Province is evident, and it is estimated that the opening of the season this year will find in this Province in the neighborhood of from 70 to 80 cars, all of which, with the possible exception of one or two, will be of the pleasure type, the exceptions being of the commercial sight-seeing class, which, however, have been failures on account of a lack of sufficient power to cope with the steep hills so frequent in this section. The great majority of the pleasure vehicles are in what may be designated the medium-price class, that is, ranging in catalogue price from \$2,500 to \$3,000. The remainder, with the exception of two or three French cars, are of the runabout or light touring class, ranging in price from the cheapest buckboard to about \$1,500. Fully 75 per cent of the cars now in use in this Province are of American manufacture, despite the import duty of 35 per cent, the remainder being French, English, and Canadian.

As far as one can judge of the future the opinion prevails that within the next two or three years New Brunswick, and the other maritime provinces as well, will have as many cars in proportion to their population as any other section of Canada. Already the auto agencies in upper Canada are paying attention to this district and

endeavor to keep in close touch with it through traveling representatives. There is a large sporting element in New Brunswick ever ready to take up with any pleasure-giving and invigorating pastime.

A GOOD OPPORTUNITY TO SELL.

Now is the time and opportunity for American manufacturers to cultivate and exploit this field, practically untouched. American machines are well introduced and have a big lead. They should retain it. The topography of this province demands machines that are both light and strong and good climbers, as the roads are up and down with seldom a long stretch of level. The scenery of this country almost everywhere is exceedingly attractive, hence offers much inducement to outdoor locomotion.

As one of the best means of securing an increased sale of American machines I would suggest the early establishment here of an American automobile agency having cars of different grades and prices in store, in charge of a competent mechanic able to make ordinary repairs. St. John, as the chief distributing point for the lower provinces, would be the proper place for the establishment also of a commodious and well-equipped garage, and I have no doubt that an investment here of that sort would prove a paying venture.

CHINA.

KIACHOW DISTRICT FURNISHES A FAVORABLE MARKET.

Consul Wilbur T. Gracey, writing from Tsingtau, states that there appears to be an excellent opportunity for the introduction of automobiles into the colony of Kiachow, his report reading:

There are at present only one American and two German machines in this city, but there is no reason why automobiles could not be used here to a large extent. The roads throughout the colony are excellent, being made through solid rock in many places, and all well macadamized. They run for a distance of 30 or 40 miles into the surrounding country, and with the gradual slope of the hills, about 15 to 20°, would be excellent for automobiles.

I believe that a cheap grade of automobiles could be introduced here for general use. They must be made to compete with the carriages which are now in use. Ponies can be purchased here for about \$40 to \$50 each, are used in pairs, and can be kept at about \$7 per month for feed and \$7 for a hostler. Carriages are either open Victorias, closed broughams, or dog carts, and cost, respectively, about \$350, \$400, and \$100. Small automobiles which are good hill climbers might be introduced if they could be supplied at a low price. Gasoline can be purchased at about 10 cents per gallon, and arrangements could be made for a lower price if there was a call for larger quantities.

The best way to introduce automobiles would be to ship a small number to some local firm to be sold on commission. It would be difficult to introduce machines here through catalogues. If the automobile manufacturers in the United States will forward copies of their catalogues to this consulate this office will retain one copy and pass the others to parties who may be interested. In quoting

prices the machine should be given complete, with lamps and all necessary adjuncts. Some of the German firms quote their goods not only complete in every detail, but including extra parts which are liable to wear quickly, such as tires, etc. It must be remembered that American machines must compete with low-priced German goods. There are a good number of motor cycles in use in this city, and there would undoubtedly be a good sale for cheap machines of this kind. In both automobiles and motor cycles one of the most important points to be considered is that the purchaser is three months distant from the United States, and in the event of the breaking of any part of his machine it will be laid up for several months before he can secure new parts. Simplicity of construction is therefore important. Some local dealer should be well supplied with extra parts.

GERMANY.

(PROGRESS IN MANUFACTURE—DEMAND FOR LIGHT MACHINES.

Consul H. W. Harris, of Mannheim, advises that the Deutsche Bergwerks Zeitung recently published an interesting review of the German automobile industry, and especially recounting the progress made during the past six years, from which he compiles the following:

The review shows that the automobile, regarded for some years in Germany as a luxury only for the nobility and the very rich, is rapidly becoming popular and creating a demand for light vehicles of the runabout class. The many auto expositions which have been held, touring contests, and other events have greatly aided the industry as a whole. A more tolerant view on the part of legislators, the courts and police officials, and the public press has tended in the same direction. The value of the total product of the German automobile factories for the past five years is stated to have been as follows: In 1902, \$2,613,000; 1903, \$3,808,000; 1904, \$9,520,000; 1905, \$16,660,000, and 1906, \$23,800,000.

The value of automobile imports into Germany in 1906 is stated to have been about \$4,284,000, as against \$5,236,000 of exports. A larger proportion of this foreign trade has been with France than with any other single nation. For the six years, 1901 to 1906, inclusive, the imports of automobiles from France increased from \$214,000 to \$2,618,000, and the exports of machines thereto during the same period rose from \$119,000 to \$952,000. The total automobile exports from Germany to all countries have been from year to year somewhat larger than the total imports, the relative rate of increase being in favor of the export trade. It is stated that the German automobile industry, under like tariff conditions, will be able in the future to fairly compete with the same industry in other countries.

IRELAND.

MOTOR-BOAT CLUB STIMULATES THE SPORT.

Consul A. K. Moe reports that the new motor-boat club recently formed in Dublin promises to give considerable impetus to the sport which hitherto has been carried on spasmodically in Ireland by a few individuals, concerning which he writes:

The large extent of bays, fjords, lakes, estuaries, and rivers in the island gives a ready opportunity for a large development in motor-ing on the water. Automobiles and motor bicycles have found great favor in Ireland, and it is reasonable to presume that the similar sport on its many waterways will increase to a much greater extent than has been the case in England, or even in Scotland.

Very few motor boats are yet in use in Ireland, but if the same advance takes place as in automobiling there will be within the next few years several hundred of these little vessels employed for pleasure purposes. At this stage it is the time for American manufacturers and exporters of motor boats to make a determined effort to secure a large share of the market.

ITALY.

TURIN FORGES AHEAD IN MANUFACTURING.

Consul A. H. Michelson, of Turin, reports that the great wave of industrial activity which has swept over Italy during the past five years, and of which the increase in the importations of coal and the somewhat feverish development of hydraulic power imply the importance, is nowhere more directly set forth than in the development of the automobile industry, concerning which he writes:

Turin stands at the head of this movement, which began in January, 1904, and on December 31, 1906, the companies manufacturing automobiles and their accessories in Italy numbered 111, with a nominal capital of \$2,354,600 and a working capital of \$38,600,000. Of the 37 of these 111 companies that are situated in Turin, 23 manufacture automobiles, 8 manufacture automobile accessories, and 6 are engaged in automobile coach building. No less than 11 new companies for the manufacture of automobiles were founded in Turin during 1906; those formed in 1905 being 9. The progress of the past year has thus placed Turin beyond all question first among the automobile-building cities of the world.

The value of the automobiles built in Turin and exported to the United States during 1905 was \$124,558, and during 1906, \$255,718. During the same years the value of the automobiles exported from Italy to all countries was, respectively, \$608,409 and \$2,020,871. The United States thus took from Turin more than 20 per cent of all the automobiles exported to all countries by Italy in 1905, and more than 12 per cent of those exported in 1906.

The attention of Americans in a position to profit by the strides of this new Italian industry is drawn to their opportunities. If the most favorable moment for them to invade the Turin market with machine tools, bright bolts and nuts, speed and other indicators, patented automobile parts, fine woods and fittings for coach building has not already passed, it is at least passing.

FORESTRY PRODUCTS.

LUMBERING AND MANUFACTURES.

NORWAY.

EFFORTS BEING MADE TO RETIMBER VAST DEVASTATED AREAS.

Vice-Consul Michael Alger, of Christiania, furnishes a report on the forest and forestry products of Norway, as follows:

Although 21 per cent, or 26,324 square miles, of the total area of Norway is still considered to be covered with forests, having an estimated value of about \$122,000,000, the products of these woods remain, what they have been for years, the principal item on the country's export list. Real forests, where lumber of useful sizes are found, are now confined mainly to the eastern and central part of the country, while on the coast land, from the southern part to the Russian frontier on the Arctic Ocean, there is hardly anything left of the abundance of large trees which formerly covered those districts.

The real forest trees of the country are Scotch fir (*Pinus silvestris*), spruce (*Picea excelsa*), and birch (*Betula verrucosa* and *odorata*). The two first named species grow side by side, the fir predominating on dry ground and going somewhat higher up the mountains than the spruce can grow. With the exception of the spruce, which hardly grows north of the polar circle, these trees prevail over all the country, sometimes in an unmixed continuous forest covering large stretches, but more commonly mixed with each other or with sporadic representatives of other species of trees. North of the polar circle the birch is predominant on the coast as well as in the interior and forms the great bulk of the forests. The conifers grow as high up as 2,600 feet, while the birch zone reaches from 3,000 to 3,500 feet above the sea. Three-fourths of the forest area is covered with conifers and one-fourth with foliage trees.

EXPORTATION AND CONSUMPTION OF LUMBER.

The annual lumber production is about 344,000,000 cubic feet for the whole country, or 203 cubic feet per acre of forest. Of this quantity about one-fifth is exported, the rest consumed in the country. With a population of 2,000,000 there is an annual average consumption per capita of 137 cubic feet and a forest area of 8.42 acres. About 20,000 persons earn their livelihood by working in the Norwegian forests.

The time required by the conifers to reach timber size varies greatly in Norway, where climate and other conditions vary so much on account of the great distances and the ruggedness of the country. In southern Norway the pine when from 75 to 100 years old is, as a rule, sufficiently large to yield timber of from 23 to 25 feet in length and 9 or 10 inches in diameter at the top. The spruce can, under

favorable conditions of growth, yield timber of the same size somewhat earlier, and may be ripe for cutting down at an age of 70 or 80 years. But for the whole country the period of growth for trees matured for felling may be placed somewhat higher, for the pine at about 150 years, and for the spruce at 120 to 150 years. The new growth amounts on an average to 20.7 cubic feet per acre; but at the same time the cutting down of forests is estimated at 21.7 cubic feet to each acre of forest; thus the forests are made to yield more than their annual new growth.

In Norway the forestry administration is now part of the department of agriculture, having a director, 4 inspectors, 25 managers, 2 assistants, 10 planters, and 385 overseers and rangers as the working staff.

FORESTRY WORK—PROFITS DERIVED BY THE STATE.

An appraisement of the forests and the preparations of regular plans for their exploitation have been commenced. Commercial nurseries have been established in several places, as well as establishments for collecting and sale of forest tree seed. Elementary instruction in the treatment and cultivation of forests is given at three forestry schools, and advanced instruction at the agricultural college. During the last thirty or forty years planting and scientific cultivation of forests have been undertaken both by the State (in one treeless district the State has planted a territory of more than 4 square miles) and by private persons with the assistance of the State. Planted forest is supposed to be self-seeding when 30 years old.

Of Norway's forest area the State owns 3,335 square miles, which bring an annual income of about \$268,000. The annual expenses connected with the public forests, "Statsal menninger," as they are called, amount to about \$128,000. The yearly profit derived by the State from this source is thus about \$140,000. About \$45,500 are actual running expenses, while about \$20,000 is used for planting of new trees and for seed, and the rest for purchases and improvements of forests, and for aid to private people in forest cultivation.

FOREST PLANTING—EXPORTS OF LUMBER AND WOODEN GOODS.

In 1898 a forestry society, "Det norske Skogselskab," embracing the whole country, was established, and of which a forestry engineer paid by the State has the professional management. The aim of the society is the preservation and cultivation of Norway's forests. The membership fee is 54 cents annually, or \$8.10 for lifetime-membership. The members, at present about 20,000, receive the publications issued by the society free of charge. The State appropriates about \$30,000 annually for the use of the society.

Forest planting has attracted much attention in recent years. There were 6,800,000 trees planted and 748 pounds of seed sown in 1905, of which 1,487,400 trees were planted and 176 pounds of seed sown by school children and other young people. Forest planting is gradually being introduced as a subject in the public schools. Especially on the west coast the school children have taken much interest in the matter. In a single parish 100,000 trees have been planted by them during the last three or four years.

About one-third of the total exports from Norway in 1905 consisted of lumber and wooden goods. The value of the different classes of

these products were: Lumber, \$9,355,500; manufactures of lumber, \$656,000; wood pulp (about 450,000 tons), \$7,402,300; and paper (about 72,000 tons), \$3,324,700; total, \$20,738,500. Included in manufactures of lumber are about 3,000 tons of matches, valued at \$326,700.

PERU.

VARIETIES OF HARD WOOD ABUNDANT—INVITING FIELD FOR CAPITAL.

Consul Charles C. Eberhardt, of Iquitos, in a comprehensive report on the people and development of Peru, furnishes the following on that country's supply of valuable timber:

Years ago the Peruvian Government, looking toward the development of her rich possessions on the upper Amazon, had four small steamers built in England for use on the river, two plying between Para and Iquitos and two for service above Iquitos. To keep these steamers in repair and to furnish lumber for the improvements at Iquitos, which it was hoped would follow, a planing mill was established. The steamboat service did not prove a success, however, and the mill was run only periodically and with little success till 1894, when business in general became better and the mill was placed on a paying basis. It is at present under the management of Mr. Max. Augustin, who is doing exceptionally well considering the size of the plant and the kind of machinery he is obliged to use. He has a ten-year contract with the Government at £13 per month rental, in return for which he has entire charge of the mill, assuming all liabilities and receiving all profits. This contract will expire in 1908.

The machinery is all of very old pattern, consisting of two vertical saws, two circular saws, one band saw, and an engine of 80 horsepower of German manufacture. The daily output when running at full capacity is 1,800 feet, though this is rarely accomplished, the average usually being from 800 to 1,000 feet when the mill runs, which is less than half the time. This is not because of the poor local market, but because of the difficulty in obtaining labor and the primitive manner in which the logs are gotten out.

LARGE LOCAL DEMAND.

The desirable timber in the immediate vicinity of Iquitos has all been cut off, and as there are no roads the logs must all be floated down the river. Laborers are very scarce, for the often-mentioned reason of the demand for their services in rubber gathering, and such as can be obtained work only during the dry season, cutting a very limited supply of such trees as grow near the water's edge, where the logs are allowed to lie till the river rises sufficiently to float them downstream. The best grades of lumber are very heavy and will not float, so it becomes necessary to cut a great supply of the light lumber of poorer, cheaper grades, from which rafts are made for carrying a limited supply of the good grades to the mill. The mill does no fine work, in fact there are no facilities for such work, and the demand for common rough boards and dimension lumber being far in excess of the supply, the entire output is sold at prices averaging \$180 United States currency per 1,000 feet. Of this output by far the greater part is a species of cedar, not at all durable, and when dry apt to split badly. It does not even serve well for material for the shooks or rough boxes in which the rubber is shipped from Iquitos.

GOOD FIELD FOR INVESTIGATION.

Strange as it may seem, the United States, with its rapidly-decreasing lumber supply, and the Baltic regions furnish annually thousands of feet of lumber for the Amazon Valley, itself rich in untold miles of virgin forests. It is said that about seven years ago a local business house furnished the capital for the establishment of a mill about one day's journey up the river from Iquitos, but the manager died before the machinery had been placed in position. The matter was then placed in the hands of a Peruvian, who had had little experience in such matters, and yet inside of three years he was able to purchase the entire mill and is said to have been making an annual profit during the past three years of approximately \$25,000 United States currency. The plant can not be said to have had first-class machinery either, though new machinery from the United States is now being purchased. At present there seems no industry in this part of Peru where such profits can be made on comparatively small investment as a sawmill, run by practical lumbermen along up-to-date lines. The trees are to be had for the cutting and probably the greatest difficulty to overcome is that of securing labor. When it is remembered that the river above Iquitos as far as Yurimaguas, a distance of some 400 miles, and other rivers as well, are navigable the year round for vessels drawing 14 feet of water, it seems that the question of exporting some of the better grades of hard woods from the Amazon Valley to the United States might bear looking into.

GREAT BRITAIN.

LUMBER IN ACTIVE DEMAND—HARDWARE GOODS.

Deputy Consul Ernest Harker reports that continuous building operations in Birmingham create a market for large quantities of construction materials.

For the fiscal year 1905-6 there were erected in Birmingham 1,180 houses and shops, 44 factories, 18 business premises, 6 churches and schools, 177 miscellaneous buildings, while 212 buildings were altered or enlarged. The city has 540,000 inhabitants and is still growing. Coventry, a neighboring city, is also expanding, due to the rapid growth of the motor-car industry.

The total value of sawn, split, planed, or dressed wood imported into the United Kingdom during the calendar year 1906 amounted in value to \$90,195,507, against \$74,241,522 the year previous. The receipts from Russia increased from \$24,150,454 to \$29,069,064; from Sweden, \$16,751,597 to \$19,481,926; from Canada, \$15,901,340 to \$20,382,780; and from the United States, \$8,241,642 to \$9,976,160. The major part of this wood was for building purposes. There seems to be no reason why American lumbermen should not be shipping more well-seasoned wood in the form of floor joists, boarding for floors, beams and rafters for roofs, molding for window and door frames, matched boards for lining, doors, etc.

Considerable timber in the hewn state is also imported, the values in 1906 having been \$18,009,500 of hewn fir, oak, and teak wood, and \$13,202,834 of pit props or pit wood. The United States leads in the supply of the former, furnishing \$4,260,752 worth last year. [The vice-consul forwards a manufacturers' wholesale selling price list of

building hardware, which is available to the American trade at the Bureau of Manufactures.]

HOW TO COMPETE.

Consul Albert Halstead, of Birmingham, makes the following observations on the British lumber trade:

With proper cultivation of the British field, the American proportion of wood and timber imports can be increased. Freight from the United States is necessarily a most important item, but if the slower vessels, including those of the tramp order, were used, American wood and timber should be able to compete on practically equal terms with that from Russia and Canada, though Scandinavian timber must always have a decided advantage.

Only seasoned timber should be shipped, because this is a very damp climate, and wood that is not properly seasoned very often swells and gets out of shape. Lumbermen who would sell timber profitably in the United Kingdom must be prepared to keep large stocks on hand, that they may be able to fill orders without delay. A seaport should be selected for lumber-storage purposes, so that by sea or rail other ports and the interior can be easily reached and orders filled promptly. The time required to deliver lumber from the United States upon receipt of an order from the United Kingdom is too great to obtain all the possible trade in lumber, unless large stocks are kept here. At the same time lumber merchants must be prepared to give long credits and adapt themselves fully to British commercial conditions. Nor can they expect satisfactory results if they attempt to sell by the correspondence method. They must have agents or representatives on the ground.

As to what is called in England "builders' ironmongery," it is imperative that such materials should be kept on hand in the United Kingdom at some central point, so that orders can be received and goods delivered promptly, because merchants who deal in hardware, and this really applies to all kinds of merchants in the United Kingdom, do not carry large stocks, but order as needed. They expect manufacturers or factors to be ready to supply them promptly.

MARKET IN WALES.

Consul D. W. Williams, reporting from Cardiff, says that the rapid growth of the mining industry in South Wales is causing a shifting of population throughout the principality, and there is also an influx of population from all parts of the United Kingdom. The result is that the building trade in Wales is more flourishing than in any part of the island outside of London. The supply of native lumber has been exhausted, and the island is now dependent for all except the rougher grades upon foreign supplies. American finished lumber finds a ready sale, and it forms an important element in the imports. The direct imports into Cardiff via Lord Line steamers from Baltimore in 1906 were 4,245 doors, but there were other imports via Bristol and Liverpool.

FRANCE.

LITTLE ENCOURAGEMENT FOR IMPORTATIONS.

Consul-General R. P. Skinner, of Marseille, upon receipt of an inquiry from certain American manufacturers of fir doors who are anxious to secure an outlet for their goods in foreign markets, referred

the communication to an importer of American and Scandinavian lumber at Marseille [name on file at the Bureau of Manufactures], who gave the following information on the subject:

It is hardly probable, in view of the prohibitive duties now applied to manufactured wood upon its arrival in France, that foreign countries can compete with domestic manufacturers, and more particularly as the articles in question have been beaten down already as to price by competition between the French manufacturers themselves. Swedish manufacturers have never succeeded, and do not even attempt at present to offer manufactured doors in Marseille, except for the colonies.

If there should be established here a warehouse supply of these articles (in bond), which would permit of their reexportation to the colonies without payment of tariff taxes, it might be possible to do something from time to time, but it would be difficult to establish a continuous current of business. In any case this result will only follow after a sustained effort. I am of opinion also that there would be something to do with Egypt, Greece, and Asia Minor if such a depot should be established here. It will be necessary to do something more than to supply a sample in order to conclude any serious business. If your correspondents would care to send their catalogue with prices, I would be able to form a closer opinion and pronounce upon the project of importations from America in a more definite manner.

Personal knowledge of this importer's connections, conservative methods, and general reliability, warrant me to saying the American manufacturers would act wisely if they should adopt his suggestion. It would be useless to initiate this correspondence unless the interested firms are prepared, in case their terms are satisfactory, to consign a stock of goods for the purpose of being reshipped to the various Mediterranean and colonial markets indicated.

CHILE.

RECONSTRUCTION OF VALPARAISO WITH WOOD, STEEL, AND CEMENT.

According to Consul A. A. Winslow, of Valparaiso, the earthquake of August 16, 1906, has led the architects and builders of Chile to study seriously the materials to be used in the future buildings, and they are more and more settling down to the use of wood, steel, and cement. The consul portrays the situation as follows:

Prior to the earthquake but little steel entered into the construction of buildings here, save in the corrugated roofing, gutters, etc., but since that time many beams, frames, and supports are being put into injured buildings to strengthen them. In one case a five-story steel-frame office building, reenforced by concrete, has been erected, and others are contemplated. Heretofore many of the lighter buildings have been a frame skeleton filled in between the uprights with mud and plastered on both the out and inside, and in many cases the outside entirely covered with corrugated iron. This is quite true of the residences in the better parts of the city, where the fewer deaths occurred during the earthquake. In the future it is proposed to use this plan more for the larger business houses, only in place of the wooden frames, steel will be used, and concrete in the place of the mud. So far nearly all ceilings have been made of wood or of white cotton cloth, but from now on there will be more metal ceiling used in the better structures. Nearly all the limited amount used to date has come from Germany. There is a good opening for the American manufacturer of metal shingles, and I feel sure it will pay to push the matter.

The demand for cement will be heavy here for the next few years. Portland cement comes first, and then a grade called Roman cement, which has been the kind in general use in Chile. It all comes from Europe, mostly from Germany, whose trade amounted in 1905 to 25,504,350 kilos (kilo $2\frac{1}{2}$ pounds), while England's was 11,895,475 kilos, and the United States, 1,800,925 kilos.

BOHEMIA.

ENDOWMENT FOR THE BENEFIT OF WORKINGMEN.

Consul U. J. Ledoux, writing from Prague in regard to a movement for better workmen's dwellings in Bohemia, says:

The Böhmisches Sparkasse, the oldest, largest, and wealthiest saving institution of Bohemia, has announced that on the occasion of the coming sixtieth jubilee of the Emperor's reign it will devote a sum of \$240,000 for the endowment of cheap cottages for workmen. Advantage will be taken of a bill which passed the Austrian Parliament on July 20, 1902, granting twenty-four years' exemption to such cottages or dwellings as are erected on open building ground or on an area of houses demolished to the ground, providing these cottages or dwellings are erected for the specific purpose of procuring cheap and healthy residences for laborers and employees of all kinds, and provided further that such dwellings come up to the sanitary requirements specified in the bill.

On April 11, 1906, the Diet of Bohemia also passed a bill granting to such dwellings a remission of the provincial and local taxes for the same term of years as fixed for the exemption for Imperial Government taxation. A local paper says that though the Imperial Government's bill has been in operation since 1902, nothing, or comparatively little, has been done for improving the dwellings of the laboring classes, thus furnishing a proof that in dealing with humanitarian problems simple legislation remains ineffectual without private co-operation. Commenting further upon this donation, the paper says that it bears the stamp of true American style, "endowments for great purposes." The initiative taken by the Böhmisches Sparkasse is the more welcomed by the public as it is confidently believed that others may be induced to follow the example.

FURNITURE MAKING.

BELGIUM.

HIGH COST OF MATERIALS CREATES MANUFACTURING DIFFICULTIES.

The increased cost of the raw materials entering into the manufacture of furniture has brought the industry in Belgium to face a serious problem, according to Consul W. P. Atwell, of Ghent, who reports as follows:

The furniture manufacturing industry of Malines is the most important in Belgium, and large quantities of American lumber are imported each year for use in the factories. This industry is now nearing a very serious crisis, caused principally by the high prices of lumber and other articles necessary in the making of furniture. The

prices of oak, walnut, and mahogany have increased from 30 to 40 per cent, according to species and quality, and the same may be said of supplies made of iron and copper, such as locks, hinges, and door-knobs, all of which have increased from 10 to 15 per cent; varnish, turpentine, and glue increased from 5 to 8 per cent, while the price of glass of all kinds increased approximately 10 per cent.

It is thus easily understood that the cost price of all articles of furniture has considerably increased. Manufacturers, with few exceptions, are without stocks on hand, and it may be said that the prices have gone up from 30 to 40 per cent. It is quite natural that with the increased prices prevailing orders are scarce, the retail dealers deliberately refusing to purchase at the increased prices. The situation has a very serious effect on the manufacturers of less importance; these, finding themselves without orders, will be obliged to close their workshops, and the result will be that nearly 3,000 furniture makers will find themselves without work.

MADEIRA.

EXTENT OF THE WICKER INDUSTRY AND EXPORTATION OF PRODUCT.

Consul Maxwell Blake, in the following report from Funchal, describes the methods of making willow furniture in Madeira, which will be of special interest to the same line of trade in the United States:

The osier or willow from which the various wicker articles are made is indigenous to the island, and is scientifically known as the *Salix viminalis*. It is easy to propagate, grows freely, and has great vegetal resisting power, preferring a moist soil, though not exacting it. It is propagated by cuttings, a crop maturing in nine months. After having been gathered the ends are soaked in water until the tops begin to sprout, when it is easily peeled and ready to be worked up. The amount raised in the island is about 400 tons annually, the raw product being worth from \$60 to \$70 per ton. The willow when peeled is particularly white, with a silky or glossy appearance for which it is greatly admired, although this freshness of surface does not long resist the bleaching effects of the sun.

It is noticeable that the finished article displays little if any artistic development from year to year. It is really surprising to those familiar with the limitations of the artisans, that they have been able to show so much rudimentary aptitude and delicacy of design, being altogether without examples to imitate, with little notion of design, and no educational preparation. Though they can be relied upon to faithfully execute, they can never furnish more than the mechanical skill to obey the creative instinct of others.

The more common articles of furniture manufactured are chairs, retailing here from \$1.50 to \$2 each; sofas, from \$3 to \$7 each; tea tables, \$1.50 to \$5; hampers, and a great variety of baskets, of all sizes, shapes, and colors. The exports are said to amount to at least \$125,000 worth annually, although only about \$6,000 was declared through the custom-house in 1906. The number of men employed in the industry is about 500, their pay being 50 cents per day.

TARIFFS.

CHANGES AND REGULATIONS.

FRANCE.

• PROPOSED INCREASE IN RATES ON AMERICAN PRODUCTS.

In a review of the foreign commerce of France for the year 1906 Consul-General Frank H. Mason, of Paris, under date of February 18, furnishes the following information in regard to measures pending before the Chamber of Deputies which propose to increase rates of duty on American cotton-seed products and shoes:

The important question of maintaining the foothold already gained, and of developing still further the market for American products in France, is closely and inseparably connected with that of the import duties which are assessed in the two countries. The tariff system of France is protective, and it is modified from time to time as the interests of special industries seem to require, the changes thus made being uniformly in the direction of increased rates of duty.

Among the propositions of this character now pending before the Chamber of Deputies are two which are of especial importance to the United States. The first of these is a bill which was introduced at the session of December, 1906, to so modify the schedule of duties on oleaginous fruits, seeds and oils as to advance the rate on cotton-seed oil of high quality from 6 francs (\$1.15) to 25 francs (\$4.82) per 100 kilograms. The importance of this proposal for certain American interests will be readily inferred from the fact that the imports of cotton-seed oil into France from the United States during 1905 aggregated 46,641 tons, valued in French statistics at 26,605,006 francs, equal to \$5,134,765, or about \$110 per ton.

This oil is used in France for mixing with olive oil and for the manufacture of oleomargarine, oleine, etc., which constitute in the aggregate an important and thriving industry. It is claimed by the French importers and principal consumers of American cotton-seed oil that the proposed increase of duty would prove practically prohibitive and entail the ruin of their business, since cotton-seed oil of the high, pure quality adapted to the manufacture of edible products can be obtained in large quantities nowhere except in the United States. Through the influence of the importers and manufacturers interested in the trade, reenforced by the American Chamber of Commerce in Paris, final action on the proposed measure has been temporarily postponed, but it is liable to be brought forward again at any time, with a possibility of being adopted.

DUTY ON SHOES.

The second proposed tariff change that will affect seriously a growing class of imports from the United States is a proposition

introduced in the Chamber of Deputies on January 11 last to largely increase the present import duty on shoes.

French exports of shoes to all countries, which amounted to 26,000,000 francs in 1895, had declined to 17,000,000 francs in 1904 and to 9,645,000 francs during the first eight months of 1906. On the other hand, the importation of foreign-made shoes, especially American, into France are steadily increasing, the total receipts during the first eight months of 1906 being valued at 3,240,000 francs, or more than the shoe imports of the entire year 1905.

PRESENT AND PROPOSED DUTIES.

In consequence of the heavy export demand for French leather the price of that material has advanced steadily during the past year, and the wages of capable shoe operatives are exceptionally high in proportion to those paid to other classes of factory operatives. As a result of all these conditions the shoe manufacturers of France demand relief through the bill now before the Chamber of Deputies, which proposes to increase the duties on boots and shoes to the following extent:

	Present rates.		Proposed rates.	
	General.	Minimum.	General.	Minimum.
	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
Top boots	2.50	2.00	6.00	3.00
Lace and button shoes	2.50	1.50	4.00	2.00
Low shoes	1.00	.75	3.00	1.50

The effect of this enactment would be to advance the duty on men's and women's lace and button shoes from countries having treaty relations with France from 28 cents to 38.6 cents per pair. Shoes from the United States and other countries not enjoying the minimum tariff would pay 77 cents duty instead of 48 cents per pair under the present schedule, a rise of 29 cents, or 60 per cent, which, in the opinion of certain parties interested in the trade, would check future increase in American shoe exports to France.

SPAIN.

CERTIFICATES OF ORIGIN NO LONGER REQUIRED.

Considerable difficulty was recently experienced by American firms doing business with Spain, owing to the requirement of certificates of origin as a condition precedent to the admission of American goods at the minimum rates of customs duty. As a result of the presentations of the American and other interested legations and embassies, a royal order was issued February 11, 1907, dispensing with the former requirement in the case of many articles of American exportation. The tariff numbers and the articles they represent, affected by the new order, are as follows:

31. Plate and sheet glass and crystal, curved or not, from 4 to 12 millimeters, inclusive, in thickness, colored or not, plain or with relief work.
33. Window glass and crystal, up to 4 millimeters, inclusive, in thickness, whether beveled, curved, or colored, or not; also stained window glass.
42. Chimneys, water-closets, filters, baths, pipes, and similar articles of fine earthenware, stoneware, china ware, or porcelain employed in heating, in the drainage of houses, or as ornaments for buildings.

Iron and steel:

- 55. Bars, not polished, of any section.
- 56. Plates, more than 5 millimeters in thickness.
- 57. Plates, from 1 to 5 millimeters in thickness.
- 58. Plates, less than 1 millimeter in thickness.
- 59. Plates, polished, engraved, galvanized, coated with lead, perforated, indented, corrugated, or worked in any other manner, but not manufactured; and polished bars.
- 60. Plates, coated with tin, including tin plate, not manufactured.
- 61. Hoop iron and hoop steel, not polished, from 1 to 3 millimeters, inclusive, in thickness, and up to 160 millimeters wide.
- 62. Hoop iron and hoop steel and elastic hoop iron, not polished or coated with other materials, less than 1 millimeter in thickness.
- 83. Iron or steel pipes, wrought or drawn, or simply bent, not exceeding 45 millimeters in diameter.
- 84. Iron or steel pipes, wrought or drawn, or simply bent, of 45 millimeters and upward in diameter.
- 85. Iron or steel parts for fitting the above-mentioned pipes.
- 97. Gauze of iron or steel wire up to 1 millimeter thick, inclusive, provided that there are not more than 40 threads per square centimeter therein.
- 106. Mortise locks, bolts, padlocks, and keys for the same, not composed of other metals as to any of their parts.
- 107. Mortise locks, bolts, padlocks, and keys for the same, with parts composed of other metals.
- 111. Coffers and safes of iron or steel for the custody of valuables or for other uses, with or without parts composed of other metals.
- 113. Beds and other domestic furniture and utensils of iron or steel (except kitchen utensils and domestic utensils made of sheet metal) without parts of other metals; also component parts of such furniture and utensils.
- 114. Beds and other domestic furniture and utensils (other than kitchen utensils), formed of tubes of iron or steel coated with brass or nickel; also component parts of the same, and the tubes, even imported separately.
- 115. Beds of iron and steel, with parts composed of other metals, or ornamented with other materials.
- 151. Unwrought gauze of copper, brass, or bronze wire, containing less than 40 threads to the centimeter.
- 152. Unwrought gauze of copper, brass, or bronze wire, containing 40 threads and upward per centimeter.
- 176. Zinc, in other manufactured articles, varnished or not.
- 199. Colors derived from coal, and other artificial colors, in powder or crystals.
- 200. Colors derived from coal, and other artificial colors, in paste or liquid.
- 242. Wheat or rice starch and malzena.
- Endless paper, white or colored, not cut, satined or not, weighing per square meter:
 - 396. Up to 20 grams, inclusive.
 - 397. From 21 to 40 grams, inclusive.
 - 399. From 51 to 100 grams, inclusive.
 - 400. More than 100 grams.
- 439. Flooring and paving, composed of various kinds of wood.
- Reed, vegetable hair, rush, osiers, fine straw, palm, esparto, and other similar materials:
 - 459. In the form of furniture, upholstered with tissues or leather.
 - 460. In the form of other kinds of furniture.
 - 462. In the form of other articles, not specially mentioned, without mixture of other materials.
 - 463. Made up into articles, with a mixture of other materials.
 - 484. Varnished leather of all kinds.
 - 486. Other hides and skins, tanned or dressed, of which the weight is greater than 9 kilograms per dozen skins.
 - 487. All other hides and skins not specially mentioned.
 - 488. Leather cut into pieces for boots and shoes or other purposes, even engraved.
 - 491. Rabbit and hare skins prepared, and other skins for clothing and trimming in the natural state or prepared.
 - 496. Harness and other trappings of leather or skin for riding or driving.
 - 598. Butter, margarine, cocoanut butter, or vegetable butter.

- 638. Milk preserved, without the addition of other substances.
- 687. Argand and other lamps, chandeliers and candelabra for lighting; also separate parts of the same, except glass chimneys and reservoirs, and lamp shades or reflectors.
- 688. Writing materials, except those of gold or silver, not specially mentioned.

JAPAN.

IMPORTANT CUSTOMS DECISIONS BY AUTHORITIES AT YOKOHAMA.

Consul-General H. B. Miller supplies the following decisions of the customs authorities at Yokohama:

Concerning a bronzing machine imported with certificate of origin, importers claimed it should be taxed as a kind of printing machine, paying 5 per cent ad valorem under provisions of Franco-Japanese conventional tariff. The protest was dismissed on grounds that it was not a printing machine, but one used for applying bronze dust to printed matter, taxed 15 per cent ad valorem, under No. 456 of tariff, which item covers "All other machinery and parts thereof."

A firm imported a quantity of cable, with certificate of origin. The appraiser imposed 20 per cent ad valorem duty, in accordance with article No. 390 of tariff, covering "Submarine and underground cables and other insulated electric wire or cables; lead-covered aerial cables for telephone; lead-covered underground cables for electric light (3-phase dynamo); lead-covered aerial cables for electric light (3-phase dynamo); insulated copper wire for electric light; insulated twist copper wire for electric light or telephone; submarine telegraphic cables; underground cables for transmitting electric power (excluding 3-phase dynamos); insulated electric wire cord (twisted or not)." The importers' contention was that the article should be dealt with under No. 13, of Japan-German conventional tariff, with duty of 5 per cent ad valorem. Protest dismissed on ground that article consisting of 550 copper wires was vulcanized with rubber and canvas, over which was lead protection and another covering of canvas. Finally the cable was coated with pitch. The article classified in No. 13 of Japan-German conventional tariff, to which importers referred, is not cable, but telegraph wire only.

A similar protest was filed against the application of provisions of No. 390 of tariff on telephone wire, importers contending that 5 per cent duty should be imposed, according to Japan-German conventional tariff, instead of 20 per cent. Dismissed on grounds that provisions of No. 13 of the conventional tariff referred to were applicable exclusively to telegraph wire and not to telephone wire.

CHINA.

GOVERNMENT GOODS ALSO TO PAY LIKIN.

The controller-general of the imperial maritime customs, His Excellency Tieh Liang, has wired to all the viceroys, governors, and Tartar generals throughout the Empire stating that, in order to avoid smuggling, all descriptions of articles purchased by them, either for the Government or private uses, shall hereafter pay the same duty and tax at the various foreign and native customs in the provinces, without exemption; but, in view of the importance of the reorganization of the military forces in the provinces, all arms and ammunition purchased from foreign countries for the luchuanpu, or board of military affairs, shall be exempted from the payment of the usual duties and taxes, under special passes, to be issued by this board previous to their landing at any treaty ports of China, so that the customs taotai and commissioners may be informed beforehand, and thus avoid misunderstandings on the part of the customs officials.

PORTUGAL.

PROPOSED INCREASE OF DUTIES ON CARGOES AND FARES.

Minister Charles Page Bryan, of Lisbon, transmits to the Department of State the following translation of the proposed law increasing duties on cargo and fares for the purpose of raising money with which to subsidize the Portuguese merchant service:

ART. 1. Vessels entering or leaving the harbors of the mainland of this kingdom and of the archipelago of the Azores shall pay for embarking and landing cargo or passengers conveyed by them the tax on navigation set forth in Tariff A.

The requirements of article 1 of the of the 21st May, 1896, apply to the duties on the cargo prescribed by the present law.

2. The percentages collected for improvements in the harbors and as a quarantine tax continue to be such as were instituted with reference to taxes on cargo prior to the present law.

3. Payment of the tax of 5,000 reis prescribed in basis 2 of article 2 of the decree of the 16th September, 1890, is hereby annulled.

4. The exemptions instituted in Nos. 1 to 8 of article 4 of said law are maintained, and all of its other provisions remain unaltered.

5. The Government is authorized to publish, in one sole document, all matters relating to duties or cargo which have not been revoked by the express provisions of the present law.

6. All vessels entering the ports of the mainland of the kingdom and the archipelago of the Azores shall pay for each ton gross measurement a light-house tax.

ITALY.

ADMISSION OF MEAT PRODUCTS FROM THE UNITED STATES.

In reply to an inquiry from the Bureau of Manufactures the Italian Chamber of Commerce at New York writes:

The Italian Government does not require, for the importation of American meat products, the certificate of Federal inspection. The usual sanitary certificate, as previously and since 1898 provided for, will be sufficient. The so-called "white certificate" adopted by the United States Government for all meat exported from the United States, legalized by Italian consular agencies, covers all points which the Italian Government had to consider in the interest of the public health.

RATES ON MINERAL OILS REDUCED.

By an act of the Italian Parliament promulgated March 24, 1907, the duty on mineral oils (comprised in Tariff No. 8b) has been reduced from 48 lire (\$9.26) to 24 lire (\$4.63) per 100 kilos (220.46 pounds). The duty on nonalcoholic varnish containing mineral oils has also been reduced from 40 lire (\$7.72) to 30 lire (\$5.79) per 100 kilos (220.46 pounds).

JEWELRY TRADE.

PRECIOUS METAL WARES AND TIMEPIECES.

GREAT BRITAIN.

CHEAP JEWELRY LARGELY WORN—STYLES AND PRICES.

Special Agent William Whittam, jr., furnishes the following report on the kind of jewelry worn by the women of the laboring classes of England and the character of ornaments used in their dress-making:

Cheap jewelry is sold in large quantities to the women of the laboring classes in the United Kingdom, and this variety of ornaments is steadily growing in favor. That the American manufacturer participates in this trade but insignificantly is demonstrated by the \$356,976 worth which represents the exports of jewelry of all kinds from the United States to the whole of Europe during the year 1905. In every industrial center one is struck with the glitter of the ornaments made from paste, alloy, or lightly put together silver, and gold of low carat, worn by women and girls. Other kinds are gilded, plated, or rolled baser metals. Information obtained from retailers leads to the conclusion that a good share of this trade in cheaper articles could be quickly in the hands of American makers if an aggressive selling campaign were inaugurated. This opinion is strengthened by the record of our sales to the 5,600,000 residents of Canada in 1905, amounting to \$941,583. Yet in the British Isles, with an area of but 121,000 square miles, considerably less than half that of Texas, we sell to a population estimated in 1906 to number 43,660,000 comparatively little. I am sending to the Bureau of Manufactures a neck chain and locket, the locket of American make, and the last one left out of a purchase of 120 dozen bought by a small retailer a short time ago. The lockets were brought over by a British wholesale jeweler who visited the United States recently, and the retailer informed me that they sold with surprising rapidity. They were constructed to carry but one small photograph, whereas the wearer on this side prefers a locket in which a photo can be inserted in each side. Those manufactured in England and Germany are so made. The specimen sent is not so neat nor salable as the others in the lot, but it will show in a general way what is in good demand here. Thirteen pence (26 cents) was paid to the importer for the locket, and 9 pence (18 cents) for the chain. The two together retail for 3 shillings and 6 pence (84 cents).

When our manufacturers of cheap imitation jewelry make an effort to share in the trade they will at least find no patriotic prejudice operating against them, seeing that the market is now almost if not entirely in the hands of German, French, Swiss, and Bohemian makers.

These foreign firms send their own salesmen over, who generally confine their attention to the jobber, but owing to the density of population and the resulting ease and cheapness with which the more thickly populated areas can be covered, there is a growing tendency to attempt dealing direct with retailers, the only serious impediment to the rapid success of this course being, as I am informed, the menace of a boycott constantly held over the manufacturer by the wholesaler. And the former seems to fear the trade disturbance which such adverse concerted action by the present distributors of his products would entail. British-made goods are of superior quality, necessitating higher prices. To such an extent have the domestic manufacturers been affected by the popularity and price of the cheaper continental products that many of them are now selling foreign-made articles to the retail trade to get the jobbers' profit, while enabling their own travelers to carry a more complete line, thus reducing the expense of selling the wares from their own establishments. I have sent to the Bureau of Manufactures a few samples of the ready selling kinds, which are enumerated and described below.

SAMPLE RINGS, PINS, AND COMBS.

No. 1. A lady's pin or brooch set with a large imitation amethyst in the center and surrounded with artificial pearls. This is one of the late designs and is being disposed of in considerable quantities. Being sold as "real silver," but without the British "hallmark," the manufacturer guarantees to the dealer that it is of silver, but the fineness of the metal is not up to that carrying the "hallmark" and known here as "sterling silver." The trade in this country are very much taken up with the skill with which the stones are set to show as prominently as possible. This sample, No. 1, is the product of a German factory and is sold to the retailer for 1 shilling and 9 pence (42 cents), and he in turn sells it for 3 shillings and 6 pence (84 cents).

No. 2. A child's ring set with a stone, made in Germany, from 9 carat gold (not hallmarked), wholesale price 1 shilling and 3 pence (30 cents), and retailed for 2 shillings (48 cents).

No. 3. French-made hat pin with shell head. Wholesale price, 13 pence (26 cents), retail, 21 pence (42 cents).

No. 4. British-made silver-headed hat pins, costing, wholesale, 8 pence (16 cents), and selling over the counter for 1 shilling (24 cents). This has been in very good demand on account of its strength, neatness, and lightness. The top is merely bent silver and "hallmarked." Hat pins with very showy heads or such as are too heavy move but slowly, the heavy ones having a tendency to work out of position when in use and get lost. Enameled heads in quiet colors also sell well.

No. 5. Back hair comb made in France. A poor imitation of mother-of-pearl set with paste stones. This color of comb is being tried as a substitute for the prevailing tortoise shell colored comb, but whether it will take or not is yet to be determined. The comb sent costs 22 pence (44 cents), and sells at retail for 36 pence (72 cents).

Combs are also put up in sets of two for side wear and one for the back, although they do not sell so well as when they can be disposed

of separately. Tortoise shell colors have had a very good run, but just at present several new colors are being submitted in an attempt to change the prevailing fashion; the object, of course, being to cause the ones now being worn to be discarded as unfashionable, thus keeping up a better demand. The cheaper qualities are nearly all set with paste stones; some of them also have crude flowers and leaves painted on the top. There is a constant inquiry for combs without stone settings, having instead a very thin sheet of gold or metal to imitate gold bent round and fixed to the top edge or ridge. Many of these have been sent as presents from the United States to persons in this country, and although English-made horn ones decorated in this fashion can be had, their price is too high to meet the means of the wearers of the common and largest side of the trade. Some have been submitted from the Continent merely gilded, but as the gilt soon wears off they are not much sought after.

STAR PENDANT, BELTS, AND BUCKLES.

No. 6. A white-metal lady's star pendant set with white paste brilliants. A new style recently introduced, which is selling very fast; made in Bohemia; wholesale price, 21 pence (42 cents); retail price, 36 pence (72 cents). It was suggested to me that if the brilliants were tastefully arranged in the three national colors, red, white, and blue, the pendants could be disposed of even more readily and at a slightly higher price.

No. 7. A German-made set of blouse pins (four pieces) "cased" in gold, each carrying one green stone. These goods are in continuous demand. Wholesale price, 18 pence (36 cents); retail for 36 pence (72 cents).

Ladies' belts are worn by the million. They are sold complete—buckle, back piece, and belt material proper. I find that many wearers inquire for buckle and back piece only, preferring to attach them to suitable belt material of their own selection. This practice is being resisted so strongly by belt makers that the retail trade finds itself unable to obtain buckles and back pieces. The makers will sell buckles, but not back pieces to match. This presents an opportunity for American manufacturers of like articles to enter an important field. The belt buckles and back pieces should be qualities deliverable to the retail dealer at prices not exceeding \$1 for the two parts, so that he can retail them for \$1.25 to \$2.

Men's cuff links, preferably gold finish of some kind, without stones, but embossed or neatly and simply engraved, which the manufacturer can sell between 25 cents and \$1 a pair, would, in the opinion of retailers, be a desirable and quick-selling line.

ILLUSTRATED CATALOGUES.

The manufacturers, their agents, and the wholesale dealers issue illustrated catalogues periodically. Prices are attached to each article illustrated, but these prices are the lowest at which the goods should be retailed. They represent an advance approximating an addition of one-third to the cost. Very often, however, as much as double the wholesale price is added by retail jewelers to articles of

new design which strongly attract the buying public. The clients of the wholesaler are asked not to sell below the figures given in the body of the catalogue, although they are under no direct obligation to comply with the request.

The front pages of catalogues containing the jobber's or manufacturer's prices to the trade are detachable. The retailer can therefore remove them and use the book to give customers an idea of the appearance and price of articles he can obtain for them, but which are not carried in his stock. I am sending such catalogue, issued in March, to the Bureau of Manufactures, together with the detached pages giving trade prices. Goods are usually sold only in the minimum quantities given with the wholesale prices, ranging from single articles and pairs to quarter, half, or full dozens, according to their size and value. Terms vary from $2\frac{1}{2}$ per cent prompt cash, thirty days net, to 5 per cent for prompt cash, $2\frac{1}{2}$ per cent thirty days; net, three months. The express or postage charges are paid by the seller.

PREPARATION OF NEW DESIGNS.

When new designs are prepared to submit to the trade it is customary to make samples only, the time taken to execute an order for them approximating six weeks. On the other hand, to enable their customers to keep informed as to the latest designs, manufacturers will send to them packages containing the newest patterns on approval for a few days. Even after any pattern has proven a good seller the continental manufacturer does not make it up to stock. The contrary is general with the British maker. He usually carries a full line for prompt delivery. As an inducement, the maker offers to his trade, for advertising purposes, the free loan of electros covering most of the things he produces.

Our small exports of jewelry show that we are as yet but on the fringe of a trade which may be developed into one of great importance. Retail jewelers and general dry goods dealers who cater for the working-class trade look upon these low-priced commodities with considerable favor. They sell readily in large quantities and at a good profit. Therefore if our makers of such jewelry can meet the prices of their trans-Atlantic competitors they have a fruitful field before them. Watches of American make, from the expensive classes to the humble one-dollar kind, are common here.

We have a great hold on the dental and optical trades in Great Britain, and judging from the number of times I have been told by retailers that most of the American cheap jewelry they have occasionally handled has sold well and given satisfaction, I am persuaded that systematic, continuous, and well-directed efforts to obtain a standing in this ideal market from a distributor's standpoint will meet with a great measure of success.

[The samples and catalogue described by Mr. Whittam will be loaned to those interested in order of application.]

FRANCE.

THE LEGAL STANDARDS, IMPORT DUTIES, STAMPING, ETC.

The following information concerning the laws and regulations governing the sale of gold and silver ware in France is furnished by Consul-General Robert P. Skinner, of Marseille:

American silverware may be imported into France upon payment of duty calculated at the rate of \$193 per 220.46 pounds, this being exactly double the duty imposed upon silverware from countries enjoying the French minimum tariff. In addition to this obligation, it is required that silver of foreign manufacture shall conform to the French standards as to fineness, this being also true for manufactures of gold. The first standard for gold is 0.920 of fineness, the second 0.840, and the third 0.750; in each case variations not exceeding 0.003 are tolerated. There are but two standards of fineness for silver manufactures, the first of 0.950 and the second of 0.800; in each case variations of not to exceed 0.005 from the standards are tolerated. Manufacturers are permitted to employ any or all of these standards, but the sale is absolutely forbidden, as objects of either gold or silver, of products of lower standards or otherwise deceptive. French silverware and jewelry owe their good reputation not only to the talent of French artists, but also to the mark which guarantees to the buyer the intrinsic value of the merchandise. No manufacture of gold or silver can be placed upon the market without having been first presented to the service of guaranties, and by the officers of that service stamped, after a test, with the official mark guaranteeing the degree of fineness. When this formality is accomplished, a tax is collected, which represents the cost of this control plus a profit, which goes into the public treasury.

The number of guaranty bureaus in France is 39, wherein in the year 1905, 23,747,893 articles of gold and silver were presented, and taxes to the amount of 6,945,875 francs (\$1,340,554) were collected.

CUSTOMS REGULATIONS AND IMPORTS.

Manufactures of gold and silver of foreign origin are presented to custom-house officers at the frontier, before whom they are declared, weighed, sealed, and forwarded to the nearest guaranty bureau, where they are stamped, and where they pay fees equal to those collected upon manufactures of gold and silver of French origin. Objects of gold and silver belonging to ambassadors and representatives of foreign powers are not subjected to these dispositions. Gold jewelry comprised in the personal effects of travelers, and silver manufactures, likewise consisting of personal effects, provided that their weight does not exceed 5 hectograms (17.63 ounces), are similarly exempt, but if these objects of foreign origin thus introduced freely into France are eventually offered for sale, they must be taken to the bureau of guaranties, there to be stamped, and to pay the usual taxes. Gold and silver ware have been imported into France to the values stated below during the last three years:

Description.	1904.	1905.	1906.
Gold ware or platinum.....	\$25, 476	\$31, 266	\$83, 968
Silverware or silver gilt.....	277, 341	304, 361	370, 560
Gold jewelry or platinum.....	2, 051, 011	2, 290, 831	2, 856, 330
Silver jewelry or silver gilt.....	667, 008	648, 287	486, 360
Total	3, 020, 836	3, 274, 245	3, 749, 218

TURKEY.

EXCELLENT MARKET OPPORTUNITY IN BLACK SEA REGION.

Vice-Consul I. Montesanto, of Trebizond, makes the following report on the use of silver and silver-plated ware in that part of Asiatic Turkey:

Social life in the provinces is more animated than in the capital. In the provinces there are no public places to attract the people; hence private dinners and entertainments are the order of the day. Besides, the habit of passing refreshments to callers still continues, which calls for trays, tumblers, goblets, etc., either in solid silver or plated ware. I have noticed, even in "high life," that tables lack in silverware, in contrast to the prodigality of the entertainments, and the sets for passing refreshments are inferior from what might be expected.

Silver and silver-plated ware have a good chance in this market, as they are very little known. I have studied the market and find that what little there is comes from Germany and England. It is very expensive and far inferior in artistic taste to the American ware. American manufacturers of silver-plated ware, engaged in export trade, might address a house of good commercial reputation and chief dealers in such articles here [name on file at Bureau of Manufactures].

If the necessary attention that a beginning merits is paid in the way of packing, and expedition is observed in filling orders and in the way of sending goods, I believe, a considerable business might be established with this market. Goods should be sent either by the Cunard or White Star Lines to Liverpool for the Moss or Ellerman Line to Trebizond, or by any line to Havre to be transhipped to the French Messageries boats for Trebizond. Forwarding agencies should be avoided as very expensive and not in the least quick. Correspondence and catalogues, with net export prices, in French would answer the purpose better.

ARGENTINA.

ACTIVE DEMAND AT BUENOS AIRES—EUROPEAN COMPETITION.

Judging from the number of stores handling the same and the stock carried, Consul-General Alban G. Snyder concludes that there seems to be a very good demand for electroplated hollow ware in Buenos Aires. He writes:

The articles having a particular demand are jars, cake baskets, bake, berry, and butter dishes, toilet sets, novelties and tea sets. Silverware is imported largely from France, England, and Germany. American plate is not at any disadvantage as regards tariff, but the general impression here is that our manufacturers can not compete in prices with foreign houses. However, this remains to be seen.

Lines are sold both direct and through agents or wholesale houses, but business is generally transacted through the larger wholesale houses, except in the case of some of the larger department stores having large credit, who also buy direct. The method of payment is ninety days sight draft, that is, ninety days after the delivery of the

goods. By far the best method of securing business is by sending an agent here, conversant with Spanish, who should carefully study the market, make friends of the people, and find out the demands and desires. [Names of the principal wholesalers of such goods and the department stores of Buenos Aires are on file for reference at the Bureau of Manufactures.]

NORWAY.

DECLINE IN AMERICAN TIMEPIECE TRADE AND THE REASONS THEREFOR.

Consul Felix S. S. Johnson, of Bergen, writes as follows concerning the clock and watch trade of Norway and the means by which lost American trade can be regained:

Ten years ago American clocks were in great demand at this place, but since then there has been a gradual falling off until now one can hardly find an American clock in the whole city of Bergen. On inquiry I find that the causes for the decline in this trade are many, and these can be remedied by our manufacturers, should they desire to regain the market for their goods in Norway. First, no care is taken to make the clock ornamental. As a dealer explained to me, the American clock has a plain wooden case with no carvings or ornamentals; besides, the dial could be improved. I found on examination that the clocks manufactured in Germany (now controlling the market) have neatly carved cases, with faces of metal, engraved dials and figures.

The works in the American clocks are better than those of the German make. It thus seems that it is the appearance of the article which catches the eye of the purchaser, as it is going to be an ornament not in his office, but in his home. Another fatal mistake made by Americans is that of having a general agent in Hamburg. If an agent for Norway is desired, why should he not be located in Norway?

The clocks imported from Germany are made in the Black Forest, in the Grand Duchy of Baden, where wood is easily obtained, where carving is one of the leading industries, and where low rates for labor prevail. It is suggested that importers starting business be given the benefit of export prices and a limited time in which to make payments; also that the goods are properly packed at the factory.

American alarm clocks have made their appearance in this market, and I believe they will find ready sale, as they are retailed at 80 cents apiece, which is within the reach of all classes of people.

AMERICAN VS. GERMAN WATCHES.

American watches do not sell as well as they did years ago. Formerly three makes could be purchased in most any store; now it is only one movement with cases purchased in Pennsylvania. The orders for these watches are sent through a general agent in Germany, who, after deducting his commission for the sale, transmits them to the American manufacturer.

Germany leads in the sale of cheap watches, which can be bought at about \$4, with cases of silver. The good American watch as a timepiece has no equal and is preferred by those who can afford to buy it. Dealers tell me that it does not pay to handle the very cheap American watches, as the repairs on them exceed the profit realized.

In Norway a watchmaker does not carry a general line of goods. He does not sell jewelry, eyeglasses, etc., but confines himself to the sale of clocks and watches; an optician sees to eyeglasses, and the silver and gold smith to jewelry, silver, or plated ware. The customs duty on watches is 26.8 cents each; the duty on clocks varies from about 19 to 27 cents per 2.2 pounds. [The watchmakers in Bergen, with whom American exporters can correspond, are listed at the Bureau of Manufactures. The consul suggests that all correspondence be done in the Norwegian language and catalogue and price lists be made likewise.]

KLONDIKE GOLD MINING.

OUTPUT AND SHIPMENTS FOR ELEVEN YEARS.

Vice-Consul G. Carleton Woodward, of Dawson, reports as follows in relation to the output of gold mines in Yukon Territory:

It is interesting to note the increase and decrease of the yearly output of gold in the Yukon Territory since the discovery of gold therein in 1896. The following is a statement of the output during the eleven years ended December 31, 1906, as taken from the records of the gold commissioner at Dawson:

Year.	Value.	Year.	Value.
1896	\$300,000	1903	\$10,625,422
1897	2,500,000	1904	9,413,074
1898	10,000,000	1905	7,162,438
1899	16,000,000	1906	5,257,739
1900	22,275,000		
1901	17,368,000	Total	112,864,363
1902	11,982,690		

The total amount of gold exported from the Yukon territory during the year ended December 31, 1906, according to the records in this office, was \$5,230,606, of which \$33,538 was from Alaska, brought by miners and others on their way out, the balance, \$5,287,068, being the product of the Yukon territory. In addition to this, the records of the Alaska Pacific Express Company, at Dawson, show that \$5,930,672 worth of gold was received by that company from points in Alaska, principally the Tanana district, for shipment to the United States. This makes the amount of gold shipped from Dawson to the United States in 1906 as follows: Canadian gold invoiced at the consulate, \$5,287,067; American gold invoiced at the consulate, \$33,539; American gold in transit for the United States, \$5,930,672; total, \$11,251,278. Thus American gold shipped through Dawson amounted to \$5,964,211; while Canadian gold shipped from Dawson aggregated \$5,287,067.

DRUGS AND CHEMICALS.

MEXICAN TRADE.

SHARE OF THE UNITED STATES IN AN IMPORTANT CLASS OF GOODS.

Consul-General Philip C. Hanna writes that drug stores are numerous in Monterey and apparently well patronized. He sends the following report on the pharmaceutical trade:

Among the Monterey pharmacies is one, probably the largest wholesale and retail establishment of the kind in Mexico, where large quantities of proprietary medicines are received in bulk, put in bottles or boxes, and labeled for shipment to various parts of the country. The French were the first in the field with proprietary preparations, which are still in demand, while a number of American preparations that have been well advertised are meeting with large sales. There is an increasing tendency among American manufacturers to push their business in such lines in Mexico.

Perfumes, soap, and toilet articles generally are supplied, for the greater part by France, though a few special preparations, such as shaving soap, come from the United States, and Germany is also becoming more and more active in this department of the trade.

In chemicals generally the greater portion of the supply dealt in here comes from Germany and France. The United States being nearer receives many small orders when it is necessary to save time, but Germany appears to be decidedly in the lead with staple drugs. American articles give perfect satisfaction, but as a rule are said to be slightly higher in prices than European goods. In this city the drug trade is largely in the hands of the Germans, and this probably accounts in a measure for the buying of goods from Germany, but German drug manufacturers have been very active in pushing their trade in Mexico, while Americans seem to have been comparatively indifferent to this market.

Another thing that counts in favor of German goods is that they nearly all come labeled in the Spanish language, while American goods, with the exception of proprietary medicines, are usually received here with English labels, which are unintelligible to a large number of the people.

With a proper study of the drug trade American manufacturers could build up a much larger business in northern Mexico than they now have. In order to do this it is necessary to put in this field live salesmen who speak the Spanish language. Merchants here are not disposed to change from one house to another except for good cause, and an order once secured is liable to be repeated indefinitely as business demands.

The names of the principal drug importers at Monterey are on file at the Bureau of Manufactures. This Bureau also annexes the following statement of the exportation of drugs and chemicals from the United States to Mexico during the past five fiscal years:

	1902.	1903.	1904.	1905.	1906.
Sulphate of copper	\$139, 473	\$21, 587	\$110, 461	\$98, 757	\$107, 472
Proprietary medicines	91, 140	182, 303	219, 832	267, 008	341, 591
All other	857, 894	820, 589	706, 073	661, 479	977, 625

Mexico's total importations of chemical goods in the year 1905 amounted to \$3,421,356, against \$3,158,515 in 1904.

NITRATE OF LIME.

METHODS OF MANUFACTURE IN NORWAY.

Consul John C. Covert, of Lyon, France, supplies the following information concerning nitrate of lime:

The agricultural papers of France are manifesting considerable interest in nitrate de chaux (nitrate of lime), the new fertilizer which was not long since given to the public by a Norwegian chemist. It is believed that it is destined to fill an important place in agriculture. A member of the French Institute recently read a paper on this new fertilizer before the French National Society of Agriculture, from a report of which I make a brief résumé:

The only azoted fertilizer of quick assimilation which has been in use up to the present time is nitrate of soda, imported from Chile. The air contains immense quantities of nitrate, offering an inexhaustible source to draw upon. The progress of electrical science has afforded us a means of capturing this useful element. Azote is captured from the air by means of an electrical furnace heated to a very high temperature. The azote in the air is oxidized and converted into azotic or nitric acid. Various ingenious applications take place in a number of granite chimneys, accomplishing a gradual concentration of this acid, which is finally received into a wooden chimney filled with quick lime. This lime absorbs the nitric acid and is converted into nitrate of lime. This is in turn concentrated in basins heated to about 145°. The matter in fusion is afterwards poured into cylinders, then pulverized, when it is ready for use. The nitrate of lime thus produced contains an average of 13 per cent of assimilable azote. This powder is very hygroscopic—that is to say, it readily takes up the dampness in the atmosphere and gradually assumes a doughy consistency. The factory puts the article on the market in closely made barrels containing 220 pounds each. The nitrate is thus delivered to the consumer in good condition and is kept close in the barrels until used.

Many experiments have proved that nitrate of lime is as good a fertilizer as nitrate of soda. Its action is the same in all kinds of ground, even in calcareous land. In some kinds of farming, especially in the cultivation of the beet, it is superior to nitrate of soda, which is sometimes detrimental to a perfect development of the plant.

Although the raw material for the manufacture of nitrate of lime is in the air and is cheap and inexhaustible in quantity, its conversion into an article for use is costly. An expensive element in its manufacture is the motor power which is necessary to obtain the high temperature of the electrical furnace. Waterfalls, carefully controlled, are indispensable, and Norway is exceedingly rich in this form of power. In France the cost of production will be much greater than in Norway.

PAINTS IN NORWAY.

SOME AMERICAN GOODS SOLD ON THE MARKET.

A report from Consul-General Henry Bordewich states that although there are several paint works in Norway paint is imported to some extent, the following being the trade particulars:

American paint has been sold in this market with varied success. According to the official statistics, Norway imported during the year 1905, 156,220 kilos (kilo=2½ pounds) of ground paint in oil, valued at \$14,258, of which 3,420 kilos appear to have come from the United States. Owing to the peculiar way in which the Norwegian statistics are compiled, the import of this article from America may have been somewhat larger, because only the shipments of goods coming from America by direct steamer to Norwegian ports are marked down as coming from America. American goods arriving via England and Germany are set down as imports from such countries. The import duty on paints in oil is 2.1 cents per kilo, and a trifle less on dry paints. The larger portion of the imported paint comes from Great Britain, but some also comes from Germany.

I have paid special attention to paints ground in oil in this report, for the reason that American firms exporting paints to Norway generally offer that article only. Unground, dry paint stuffs, such as white lead, zinc, barite, ocher, etc., are more important articles of import than the prepared paints. Of these goods there are imported some 8,000,000 kilos per annum. [Of firms with whom American paint manufacturers may correspond with the view of opening up trade in Norway, six are named by the consul-general, and the addresses are placed on file at the Bureau of Manufactures.]

IMPORTS OF METAL CAPSULES.

Consul-General Bordewich also writes that in the introduction into Norway of American-made capsules, used for decorating wine and whisky bottles, the articles should be handled by some active agent who would call upon the large importers with samples.

The importers have already trade connections established with manufacturers of capsules in Germany and other European countries, as well as with one local manufacturer of these goods; therefore in order to induce them to make a change to new and untried firms will require advantages in the shape of lower prices or superiority in quality. [The consul-general furnishes a list of importers and users of metal capsules in Norway, which are indexed at the Bureau of Manufactures.]

RUSSIAN TURPENTINE MAKING.

CRUDE PROCESS OF PRODUCTION—MARKET PRICES.

Consul-General Ethelbert Watts writes from St. Petersburg that from information obtained the largest quantity of Russian turpentine is produced in Poland, where the peasants are engaged in this industry, employing the following primitive methods:

Pine stumps are placed in trenches dug in the ground, these trenches having iron-sheeted bottoms, under which fires are started to distill the turpentine from the stumps by means of the heat. The turpentine so extracted is caught in reservoirs and through a pipe line conducted to the place where it is placed in barrels and shipped to the nearest town to be sold. It is impossible to ascertain the cost of running these plants. The raw turpentine is not sold at the place of production. There are three grades of turpentine sold in the market. The prices of each of the grades are at present quoted as follows: Best quality, 2.80 rubles per pood, or 4 cents per pound; second quality, 2.50 rubles per pood, or $3\frac{1}{10}$ cents per pound; the lowest grade, 1.80 rubles per pood, or $2\frac{1}{10}$ cents per pound, all products in this country being sold by weight.

SOAP TREES.

PRODUCT VALUABLE FOR FABRIC CLEANING.

Consul-General Richard Guenther makes the following report from Frankfort, Germany:

Mr. R. Lang, of this city, councilor of commerce and delegate to the government of Algiers, states that he has just returned from a commercial tour of study in Algiers, where he was called by that government. During his trips he met one of the largest landed proprietors, Mr. S. Bertrand, chairman of the Algerian Agricultural Society at L'Arba, near Algiers, whose domain comprises many thousand hectares (hectare, 2.471 acres), which are planted with vines, oranges, olive and soap trees. He has succeeded, after numerous experiments, in cultivating a large plantation of soap trees, from which he gathers several thousand tons of berries annually. The soap tree resembles an apple tree of medium growth. The fresh fruit is green, the interior of which, besides the kernel, contains a yellowish, gelatinous, sticky substance. The fruit used for making soap contains three times as much soap as the "panama" wood. It seems to be destined to be of great service to the cloth and linen manufacturers, and, above all, for domestic purposes, as it can be used to clean linen and silken fabrics and colored embroideries. The colors are in this way renovated, while the use of soap makes them run together.

BAMBOO SAP.

HIGHLY REGARDED IN INDIA AS A MEDICINE.

In replying to a California inquiry as to the use of the sap of the bamboo in India, Consul-General William H. Michael, of Calcutta, supplies the following information:

The sap of the female bamboo is used for medicinal purposes in India, and it may be had in the Indian bazars of Calcutta at from 41 cents to \$1.35 per pound, the latter being the specially white and calcined tabashir. "Tabasheer," or "banslochan," is sold in all Indian bazars, as it has been known from the earliest times as a

medicinal agent, its use as such having, it is supposed, originated among the aboriginal tribes. It is also known in Borneo, and was an article of commerce with early Arab traders of the East. Its properties are said to be strengthening, tonic, and cooling. A great deal has been written about tabasheer or tabashir in Hindu medical works which have been reviewed by modern writers. It has been analyzed and has been shown to consist almost entirely of silica, with traces of lime and potash. With our present knowledge of medicine, such an article is not calculated to be very efficacious, but from its remarkable occurrence in the hollows of bamboos the eastern mind has long associated it with miraculous powers.

TURKISH SALT PRODUCTION.

FROTH MAKES THE FINEST ARTICLE.

Consul E. L. Harris reports that the total average annual production of salt in the vilayet of Smyrna is 167,640,000 pounds, the net cost of the product being 5.04 cents per 212 pounds. The consul thus describes the industry:

At Tcham-Alti a certain kind of salt is collected from sea water, which is very much sought after by the Turks. It bears the name of "keupuk touzou," which means "froth salt." It is collected from the salt pans when the crystallization on the surface of the water is just beginning, when the surface ruffled by the wind, which blows intermittently, becomes all froth. In order to secure a large quantity it is essential to collect it promptly and at an opportune time, otherwise it readily mixes again with the ordinary salt when this begins to form.

The Turkish administration of the public debt has built four large depots at Phocia, which will store 94,600,000 pounds of salt. These depots are situated at about 20 nautical miles from this port. Large quantities of salt are shipped to the various ports of the Mediterranean in sailing vessels. Even with these large shipments the production still exceeds the demand and attempts are now being made to supply even Australia with salt from Turkey.

MISCELLANEOUS.

WORLD EXPOSITIONS.

JAPAN.

DISPLAY OF PRODUCTIONS HELP THEIR SALE IN THE ORIENT.

Consul-General Henry B. Miller, of Yokohama, reports on expositions in Japan, and by Japanese in Manchuria, as follows:

A local industrial exposition, under the management of the prefecture of Tokyo, will be held at Uyeno Park from March 20 to July 31, 1907, inclusive. The grounds upon which the exposition is to be held is the property of the imperial household department, and \$266,680 appropriated by the Tokyo Fu assembly will be expended solely for the erection of four regular exhibit halls, a fine arts building, a conservatory, a power house, and halls for each of the following: Foreign exhibits, horticulture, machinery, and for animals. A general office, medical room, and many other buildings will also be erected, including a Korean residency, a Formosan building, etc.

On January 25 applications for over 100,000 exhibits had been filed and granted. Of this number 10,016 are for porcelain and earthen ware, glassware, etc.; 3,631 metal manufactures, and 13,180 lacquer ware manufactures.

Permission will not be granted to exhibit articles previously exhibited in a foreign or domestic fair or exposition. Seventeen foreign firms, including four American firms, will exhibit in their own names, while many others will have their articles exhibited in the name of their Japanese agents or representatives.

A building is to be erected for the purpose of exhibiting vegetables in their natural form; the Japan Athletic Society will construct the athletic building, and the Japan Red Cross Society will exhibit articles demonstrating the relief works in time of war and peace. Zoological and patent buildings will also be erected, in addition to a greenhouse and an amusement hall.

PATENT OFFICE EXHIBITION.

The Japanese patent office exhibition building at Dosan Machi, Kojimachi, Tokyo, was opened February 1, 1907. The building is new and covers about 6,120 square feet. The exhibits, numbering over 2,200, are for the most part articles invented or designed by the Japanese and are protected by either Japanese patent or registration. Among them are clothing, boxes and receptacles, dyed and woven goods, buttons, rings, fans, stationery, toys, agricultural tools and implements, furniture, chemical apparatus, and among the patented articles (though not many) are found fire extinguishers, engines, pumps, agricultural tools, and looms. The exhibition is a permanent one and will be open daily.

In connection with the international exhibition to be held in Japan in the year 1912 the following revenue is reported and estimated: From the municipality of Tokyo, \$1,500,000; from the national treasury, \$2,500,000, and income from the exhibition, \$1,000,000. The area of the exhibition ground is estimated at about 10,800,000 square feet. The principal buildings to be erected by the Government are two scientific buildings, two industrial buildings, two machinery and electric buildings, transportation building, marine product building, zoological building, fine arts building, agricultural building, mining building, forestry building, foodstuffs building, aquarium, oriental building, refrigerating room, horticultural building, and five fountains. In addition to the foregoing, three concert halls for the use of the public and a post and telegraph office will be built.

Both foreign and domestic exhibits are to be classified and exhibited in the buildings named. The exhibitors will be allowed to erect buildings for their exhibits within the exposition ground at their own expense. The site of the exhibition has not yet been selected, but the finance department and Tokyo municipal authorities are reported to have agreed to hold the exhibition within or in the vicinity of Tokyo, and the Tokyo municipal council recently voted an unconditional contribution of \$1,500,000. The exhibition will be formally opened on April 1, 1912, and is to continue for seven months.

THE DALNY EXHIBITION.

At the instigation of the chambers of commerce of several of the larger cities of Japan, aided by the civil authorities of Dalny, Manchuria, a commercial exhibition was opened in that city on February 1. One building, composed of eight rooms, is being used for the exhibition. In consequence of the limited time given in which the necessary preparations were made, but a small quantity and variety of articles are thus far exhibited. The authorities are anxious to obtain exhibits from American manufacturers, particularly products adapted to the Manchurian trade. Articles of great proportions can not at this time be received, owing to the lack of the requisite space. The exhibition authorities also solicit catalogues, etc., for file and reference by visitors. It is suggested that cotton goods, furniture, utensils, small machinery, dry goods, canned provisions, agricultural implements, and lumber-mill machinery would be particularly interesting.

The Japanese commercial museum at Mukden has proved to be such a success that it is contemplated keeping it open much longer than originally intended.

GENERAL REMARKS.

The Government and people of Japan are thoroughly imbued with the importance of expositions for the display of their products. There is, in the city of Tokyo, a permanent industrial museum under the department of commerce, and almost every city of prominence has some form of a commercial museum of a permanent nature. Recently a train of cars was fitted up for the purpose of making a general moving exhibition. This was especially encouraged by the newspapers of Japan and was supported by a number of the leading

commercial interests. It was moved about generally over the railroads, exhibiting all over the country accessible thereby.

It is a part of the policy of the Government to assist their merchants in making exhibitions of their products, especially throughout China, and wherever a consulate is located there are a number of young commercial students attached to the consulate engaged in studying commercial affairs, as well as in developing and assisting in marketing the products of Japan. By this method a great number and variety of Japanese manufactured articles are being distributed and sold in various parts of the Chinese Empire. The Government considers it a part of its functions and duties to encourage commerce in every conceivable form, and the exposition spirit seems to be one of the leading methods of rendering aid to commerce. In nearly all of these commercial museums and expositions the Government's position is that of merely aiding and assisting the manufacturer.

A few months ago the Government sent to Manchuria, free of expense, a large body of business men and commercial students. These men were provided with every opportunity of making a special study of the markets for Japanese products, as well as examining into the possibilities of developing and marketing in Japan the products of Manchuria, and it is largely by such methods as this, and their various museums and expositions, that they are extending their trade throughout the Orient.

EUROPEAN ROAD TREATMENT.

ENGLAND.

PROBLEM SOLVED OF PREVENTING DUST—DURABILITY AND COST.

Consul F. W. Mahin, of Nottingham, reports that the country roads of England are cared for by the county council of each shire, an elective body numbering about fifty, more or less, according to size and population of county. He continues:

The official in immediate charge is the county surveyor, an appointive officer who serves during efficiency, and is an expert engineer. All the roads are macadamized, or similarly treated, and for ordinary traffic are very satisfactory. In recent years automobiles and heavy traction engines and motor wagons have created new and serious problems. Automobiles not only cause stifling clouds of dust, but loosen the macadam by suction, while heavy engines and motor wagons crush and destroy the surface smoothness of the roads. The result has been to heavily increase the expense of road maintenance and to exercise the ingenuity of county surveyors in devising means of suppressing dust and constructing roads suited to present traffic conditions.

The Nottingham County surveyor, after experimenting for many years, has apparently solved the problems of both dust and durability. Ten years ago he tried tar washing, a process now much talked about for roads, but found it only a temporary palliative. The tar was chiefly absorbed by the joints of the paving and only partially adhered to the material, and after a few months a dust resulted which he considered worse than ordinary soil dust. He next tried tarring slag, granite, and limestone by the roadside, but the

heating of the material to a point necessary to make the tar adhere made it brittle and not suitable for heavy traffic, and the process was besides very slow and a public nuisance. He then removed his apparatus to an iron foundry and tried hot slag taken from the furnace, the first attempt of the kind. The experiment worked to a charm, and with the mixture of a toughening adjunct a waterproof road material was created. He has patented the process. Not only is the former work of heating dispensed with, but the material is not brittle, and being uniformly hot to the center it sucks in the tar. The process of artificial heating leaves the center of the material relatively cold, and the reverse effect ensues, the tar being in a degree rejected.

SUCCESSFUL TEST OF THE TARMAC PREPARATION.

The preparation is styled "tarmac." It is applied to a road without any digging or grading beyond mere leveling. Two layers are used, the lower $2\frac{1}{4}$ and the upper $1\frac{1}{4}$ inches thick. Steam rolling reduces the thickness to 3 inches. A 5-mile section of road between Nottingham and Radcliffe was used to test the preparation. It lies near the Trent River and a canal, is below the level of both and has a gravel bed. Consequently, water could seep through upon it. It was a notoriously bad road, dusty in dry weather and almost impassably muddy in wet; at the same time, one of the most important and most used roads in the county. It therefore offered a supreme test to the efficacy of a road-paving material. This stretch of road is now one of the finest in England. It is smooth as asphalt; mudless in wet weather; in dry weather dustless with ordinary traffic and nearly so with the swift passage of automobiles. A dry road absolutely dustless when traversed by automobiles is an utter impossibility. The "tarmac" road is impervious. Surface water flows to the sides, and no dust is possible, except what is dropped or blown upon it. On the usual macadam roads the wheels of heavy traffic press dirt to the surface and automobiles suck it out between the stones. Constant scraping and cleaning are required to keep such roads in order, evidence of which is the ridge of dirt always lining the roadside. At the same time the paving is disintegrating and must be frequently mended or renewed.

BETTER THAN ASPHALT.

A "tarmac" road is not asserted to be better than asphalt for general use, but it is claimed not to be slippery like asphalt when wet, and is said to cost much less to lay—barely a sixth as much, according to local experience. The road was made in parts at different times. One section has been down for five years and other sections for two or three years. The traffic over the road is unusually great, particularly in automobiles, traction engines, and the like, but seemingly without any injurious effect, for no repairs have been needed. No rolling is required to keep the road in condition, unlike the ordinary macadam road, for it has borne the weight of the heaviest traction wagons without crushing or other disturbance of the surface. It has been found reductive of road expenses to patch ordinary macadam roads, when needing repair, with tarmac.

The cost of the 5 miles of "tarmac" road was \$7,300 per mile. The cost of maintaining the road before tarmac was used was \$1,460 per mile a year. The tarmac road is expected to last about ten years

without expense for repairs. It costs about 20 per cent more per superficial yard than macadam, but the tests made indicate that the initial outlay of the "tarmac" road will be entirely repaid in six years, and thereafter a clear annual profit of at least \$1,217 per mile for about four years will result in comparison with macadam. The initial cost of a tarmac road averages slightly under 60 cents per superficial yard, 3 inches thick after rolling.

Other stretches of this kind of road, smaller than the Radcliffe section, have been made with equally good results, and it is expected to lay several miles more this year. No funds are available, without increasing taxation, for more than a few miles of new road each year, but as every new section of tarmac road decreases the cost of road repair, more and more funds will be annually released for applying the improved paving material.

GERMANY.

ABATING THE DUST EVIL BY GOUDRONNAGE.

Consul-General Frank Dillingham, of Coburg, writes in regard to a dust preventive that has been successfully tested in Germany by what is known as the "goudronnage" treatment. The consul-general quotes Doctor Guglielminetti, an authority on the subject, who says:

In 1903, when the question of goudronnage was taken up, a great deal of skepticism was manifested, especially among the engineers of the Alpes-Maritimes, who had no confidence in the future of the system. It seemed to them improbable that a thin coating of "goudronite" could possibly resist the heavy traffic and the action of rain and sun. Thanks to the subventions provided by different leagues against the dust at Nice, Beaulieu, Mentone, and Monaco, we were able to continue the experiments which had been commenced at Monaco in 1902. All the streets in Monaco with a slope of not more than 4 to 5 per cent have been treated with "goudronite" since 1903. Each year a small quantity of "goudronite" is laid on, though a smaller quantity year by year and now all the streets have the appearance of asphalt.

At Mentone for two or three years certain streets, and particularly the promenade du Midi and the place de l'Hôtel de Ville, have been treated year by year, and it has been ascertained that the "usure" has considerably diminished and the task of keeping them clean very much lightened. The suppression of dust in dry weather and mud in wet weather by this system is incalculable, but it should be borne in mind that roads which have been treated should be cleaned and washed from time to time just as other roads, because there are two kinds of dust, that arising from the wearing away of the surface and the other from the horse traffic. The latter forms half of all the dust met with. Of the 10,000 cubic meters (cubic meter=35.3 feet) of dirt removed from the streets of the principality each year, more than 4,000 cubic meters are produced by horses. At Dresden of the 50,000 cubic meters of dirt removed annually from the streets, 30,000 are attributable to horses. A train 18.6 miles in length would be necessary to remove this dirt at one time.

In order to be free from this kind of dust the suppression of horse traffic would be essential. That may possibly come about in the course of time by the rapid advance made by automobilism, but for the moment there is nothing to be done but sweep and wash the streets as frequently as possible. What we sought for in treating the roads with "goudronite" was the suppression of that dust caused by the wearing away of the surface. On asphalt and wood roads this "usure" is practically nothing, but on stone roads it is enormous, especially since the introduction of the automobile.

By treating the roads with "goudronite" this "usure" is sensibly diminished. The stones are somehow bound together and protected, the road remains in a compact condition, and the surface presented is much smoother than it would otherwise be. This is easily understood when it is remembered that "goudron-

ite" consists of oil and pitch. The soil penetrates into the stones if laid on when the ground is dry, and the pitch forms an adherent crust, protecting the stones from the friction of the wheels and the suction of the pneumatic tires. Thus "goudronite" forms an impermeable shield resembling asphalt. There is nothing surprising in this fact, seeing that asphalt is a chemical combination of "goudron de pétrole" with calcareous sand.

GOOD RESULTS ON DIFFERENT KINDS OF ROAD.

The penetration of such "goudronite" as is laid down should be studied. We have two kinds of roads on the Littoral—one calcareous, very soft and unreliable, the other porphyrous. The latter is found near the Esterel and is very hard and resisting, but it costs three times as much as the first. "Goudronite" gives just as good results on the one as on the other. It forms an asphalt carpet on the "calcaire," which may be rather slippery for horses when damp, especially if the route be too curved, and on the "porphyre," of which the sharp points stick through the "goudronite," it forms a sort of mosaic, which gives horses a better footing. It is hardly necessary to say that the harder the material employed the less will be the wear of the surface, and if it were possible to transform all the roads into asphalt, as is done by rich localities, the surface "usure" would be diminished 100 per cent. Only it must be remembered the square meter of asphalt costs \$3.86, even on stone foundations.

What it is possible to do, and what we urge most strongly, is for the authorities to relay the roads with porphyre instead of calcaire, and then to place "goudronite" upon these newly laid roads. "Goudronite" on a good hard road gives nearly the same result as asphalt and costs only \$1.93 per 0.62 of a mile over a route nearly 14 feet wide. Asphalt costs something like \$27,000 per kilometer (0.62 of a mile). The town of Beaulieu has this year placed porphyre on the main route and then "goudronite" for a distance of 3 kilometers. Again, at Mont Boron, in front of the Queen Victoria Memorial Hospital, the road has been treated with "goudronite" for a kilometer, while at Nice the promenade des Anglais, the quai Masséna, the avenue Félix-Faure, and the route de Gênes have been likewise dealt with. Never before has the promenade des Anglais been in such clean condition.

The chief engineer of the Alpes-Maritimes has at length been convinced that "goudronite" is the solution of the dust problem, and he has asked the minister of public works for the necessary funds. The minister replied that this treatment of the roads must still be considered a luxury, but that the State is quite willing to give a subvention on condition that the localities interested contribute their share.

AGRICULTURAL FAIRS FURNISH OPPORTUNITY FOR AMERICAN GOODS.

Consul-General Richard Guenther, in the following report from Frankfort, calls attention to the value of agricultural exhibitions in Europe for introducing farming apparatus:

The great exposition held last year at Berlin by the German Agricultural Association has demonstrated the beneficial effects produced by a junction of industrial and agricultural interests. The latter derive great benefits from the improved machinery and mechanical contrivances offered for agricultural uses by the manufacturers of agricultural implements, machines, etc. This year's exposition of this association will be held at Dusseldorf.

The German Agricultural Society of the Province of Moravia (Austria) will hold its annual exposition for 1907 at Zuaum. In France agricultural expositions have become very popular and elicit a strong interest among manufacturers of machinery and articles for improvement along the lines of husbandry. This year's exposition attending the "Concours Général Agricole" at Paris, as also the agricultural conventions and expositions at Rennes, Toulouse, Nancy, and other provincial capitals, all of which are super-

vised by the French ministry for agriculture, offer a favorable opportunity to foreign makers of agricultural machinery and implements to gain new customers and win markets outside of their own. The annual machinery fair which comes off at Breslau is specially worthy the attention of manufacturers in this line. Agricultural fairs and expositions are held annually in many other cities of Germany by the provincial or district societies. American manufacturers should station their ablest men in Europe to watch these opportunities and instruct employers how best to avail themselves thereof.

CONGRESS OF HYGIENE AND DEMOGRAPHY.

In connection with the International Congress of Hygiene and Demography to be held at Berlin next September, it is announced officially that the only persons, institutions, firms, etc., who can appear as exhibitors of articles are the ones who have manufactured the article themselves. Therefore if a scientific institution intends to include among its exhibits apparatus, instruments, and the like, which are manufactured and offered for sale by a private firm, the name of the firm manufacturing them must be indicated thereon as the exhibitor. In case such articles have been manufactured by the firm as a result of investigations made, or according to directions given by the scientific institution, this fact must be duly indicated on the article.

PATENTS AND TRADE-MARKS.

BRAZIL.

LAW REQUIREMENTS GOVERNING THEIR ISSUANCE.

In reply to a number of inquiries from inventors and investors of the United States, Consul-General George E. Anderson, of Rio de Janeiro, presents the following summary of the requirements of the Brazilian laws for the granting of patents for inventions, either original or in confirmation of patents obtained in other countries, as taken from a recent official publication on the subject:

It is required that applicants for patents in Brazil shall deposit in the first section of the head office of the ministry of industry in Rio de Janeiro a report or description, in duplicate, in which the invention, its use and purpose, shall be accurately described; and therewith there shall be deposited, in duplicate, all plans, drawings, and models necessary for the perfect comprehension of the invention, so that, with the explanation in the report, any competent person can understand the claims of the inventor and employ his discovery, apply it to further discoveries, or make use of the improvements it introduces. The concluding paragraph should sum up the claims of the inventor and the limits of the rights sought. At the beginning of the first page of the report there must be a description of the invention, in the shape of a title paragraph, written in Portuguese, without correction, underlining, or erasures, initialed on each sheet and dated and signed by the inventor or his representative. The report itself may be in any language, subject to the requirement that certified translations of it must be furnished, but this title paragraph

must be in Portuguese, authenticated as indicated. The report describing the invention, together with all the plans and papers connected with it, must be deposited as indicated. The inventor or his representative shall then petition the minister of industry for the patent, referring to the report deposited. In drawing up the report describing the invention the following general rules should be observed:

Information as to weight and measure shall be given according to the metric system; as to temperature, according to the centigrade thermometer; and as to density according to specific weight. The plans and designs shall be made upon suitable white, strong paper, without folds or joints, and with black indelible ink, to permit of their reproduction by photography or other similar processes. The sheets shall be 33 centimeters (centimeter, 0.3937 inch) long by 21, 42, or 63 in width, the designs inclosed in a single-line marginal frame, leaving a margin of 2 centimeters all around. The plans thus inclosed shall be drawn according to metric scale, represented on said sheets, the sheets also being numbered, if there is more than one, and signed by the inventor.

If the inventor deems it advisable, he may affix to each plan a copy in colors. In case of complicated or very large mechanical models duplicates will not be required. The report shall be deposited by the inventor himself or by his legal representative, and a receipt will be given for it.

FURTHER PROCEDURE.

A separate petition must be filed for each invention. The petition must contain the name, nationality, profession, domicile or present abode of the petitioner, the nature of his invention, with its purpose or application, in accordance with the documents accompanying the report filed in the department, without any restriction or reserve. The petition shall also contain a list of the documents and plans filed in the department, a full and properly authenticated power of attorney in case the petition is not made by the inventor himself, the original patent or a registered and authenticated copy of the same in case the petition is for the confirmation of a patent granted in another country, or of the original patent in case the petition is for a patent for improvements made by the concessionaire of the original patent, and a certificate of the first patent if it refers to a patent granted to another person.

When the application is made for improvements to inventions already patented the same rules are to be observed as to the filing of the report describing the patent, except that the plans and designs shall show modifications of the original by means of dotted or broken lines in the same colored ink. In case the petition is clearly irregular or incomplete, the minister will by letter indicate the irregularity or imperfection, the inventor losing no rights of priority pending correction. When the report of the patent has been examined and judged to be in order it shall be published for fifteen days in the *Diario Oficial* and one of the designs or models exhibited in the head office of the department, where it can be examined by the public. After such publication and the approval of the petition by the minister, the patent will be issued by decree signed by the President, giving the name, nationality, and residence of the inventor and the name of the invention, referring to the reports and documents on file. Official publication of the decree will be made in the *Diario Oficial*.

GRANTING TEMPORARY PATENTS.

Provisional titles or temporary patent rights will be granted in certain cases. It is provided that if an inventor, before obtaining

full patent rights, proposes to make experiments with his invention or to make exhibition of the same in an official or semiofficial way, he shall deposit a report upon his invention as in the case of regular patents, except that it need not be in duplicate, and shall then petition for a provisional title or patent for whatever period he may wish, but not to exceed three years. The provisional title will thereupon be given without further formality by the minister of industry; but it is provided that if the inventor shall use his invention for industrial purposes without obtaining a regular patent, he shall lose his right to priority guaranteed from the date of the deposit of his original papers.

If within the term of his provisional title the inventor shall petition for full patent rights, he shall be allowed to add to, subtract from, or substitute in the deposits he has already made, or may withdraw them altogether at the close of the term, with the permission of the Government. In the case of an official or semiofficial exhibition the Government may grant, upon its own initiative, provisional titles for inventions exhibited, when the necessary papers have been filed with the department.

Petitions for patents which cover an invention contrary to law or good morals, or dealing with foodstuffs, chemicals, or pharmaceuticals, or in some other cases, are subject to a special secret investigation on the part of the Government or certain agents appointed by it. In general cases the matter of the claims of the petitioner and in fact the whole case in each patent will be referred to such professional men and technical experts as the Government may appoint, according to the nature of the invention. The petitioner has the right of appeal in such matters.

The foregoing general rules are deduced from an outline of the laws governing the granting of patents just published. It is almost universally the better plan in such matters, however, to apply for a patent through a patent bureau or firm of patent attorneys. [Addresses of such firms will be furnished on application to the Bureau of Manufactures.]

The securing of a patent in Brazil involves an expense of from \$65 up, indefinitely, including the attorneys' fees, the difference depending upon the nature of the invention and the ease or difficulty of proving the claims, publication expenses, and fees for experts, as well as certain tax charges.

AUSTRIA-HUNGARY.

INSURANCE AGAINST IMITATIONS.

As stated in a report of a year ago on the local imitation of American goods, Consul Urbain J. Ledoux, of Prague, advises that the only protection is the carrying of patent, pattern, model, or trade-mark insurances in Austria-Hungary, concerning which he writes:

Such protection is easily secured, for, according to the treaty of commerce and navigation between the United States and Austria-Hungary, dated August 27, 1829, and the convention relative to trade-marks, concluded November 25, 1871, American citizens, as regards privileges and protection, are placed on equal footing with

Austro-Hungarian subjects. The laws and regulations regarding patents, patterns, models, and trade-marks are as follows:

According to the Austrian patent law of January 11, 1897, an invention is considered new if previous to the time of application it has not been published in print or publicly used in Austria. Owing to the fact that Austria-Hungary has not yet joined the International Convention for the Protection of Industrial Property, patents for an American invention, irrespective of the time of the first application in the home country or in a foreign state, must be applied for before any patent paper or printed notice treating the same subject of invention has been published.

REQUIREMENTS FOR LETTERS PATENT.

The inventor or his lawful successor is entitled to the grant of letters patent, which may be kept in force for the term of fifteen years by means of the yearly payment of the patent taxes, but in all matters concerning the application for a patent the best of agents should be employed. The Austrian patent law contains the following stipulations regarding the essential technical requirements of applications for a patent: First. A power of attorney of the applicant in favor of the patent agent. This power of attorney requires but the signature of the applicant without legalization. Second. An accurate specification of the subject of the invention, accompanied, if necessary, by a drawing. Both specification and drawing must be in duplicate.

As the Austrian patent law indicates but conditionally the withdrawal of a patent on account of its not being actually put into practice in Austria, this can be taken advantage of by American inventors for the further utilization of their inventive achievements. The holder of a patent must only then commence to exploit his patent in Austria, when, after the period of three years, the patentee is notified by the patent office regarding a certain time limit for carrying out his invention in actual practice. Up to that time the demand for the patented article in Austria can be supplied by importation from America.

ANIMALS.

SHIPPING BREEDING STOCK.

NEW TRADE WITH URUGUAY HURT BY BAD HANDLING.

Consul John W. O'Hara writes from Montevideo that especial care should be exercised by exporters of breeding animals from the United States so that they may arrive at the port of destination in proper condition; otherwise a bad impression is formed at first sight. He gives the following specific illustration:

On February 11, 1907, there arrived at Montevideo from New York 14 young bulls, 3 heifers, 20 ewes, and 20 lambs, all pedigreed animals, brought to Uruguay for breeding purposes, and all were in a most pitiable condition when seen in quarantine the day after arrival. The cattle particularly were covered with filth to such an extent that the hair had come off, and the sheep were footsore and dirty.

Their general appearance indicated that they had not received the proper care while on the voyage. In fact, the care taker informed me that from February 1 to the end of the voyage they had secured water only every two days. He said also that, although the master of the vessel had been given \$50 to be expended, especially for an assistant care taker for the animals, he had only been able to have an assistant for three hours during the entire voyage, and that he was obliged to pay for that service out of his own pocket.

This is the first consignment of breeding cattle that has come to this country from the United States in many years, and I fear that this occurrence will have a very bad effect. Only recently regulations that were practically prohibitive had been removed by the Government of Uruguay, and the breeders were very active in securing their removal on account of their interest in American breeding animals. English breeders have had for many years past a practical monopoly of this market and have never lost an opportunity of discouraging the importation of American animals, so that when this consignment of cattle and sheep came into quarantine and an opportunity was given to inspect them and compare them with English stock, the interest in the latter was intensified, and the status of American animals is now even lower than before, solely on account of this shipment.

BRITISH ANIMALS WELL CARED FOR.

Cattle landed from England about the same time were in good condition, fat and clean, and appeared to have been well cared for, while the American animals were in such condition as to excite only pity for them and their owners. The importers of English live stock had the argument on their side. "The cattle are no account," they said, "for our cattle have had a much worse voyage" (which is true), "and note the difference in condition." One can not blame the rival importer for making reflections on American cattle and calling attention to the apparent superiority of the English animals, but the shippers and the shipping company are to blame for allowing stock to be delivered in such condition. It is a well-known fact that breeding animals have been successfully shipped from New York to Buenos Aires and have arrived in good condition, so that the fault must be with the shippers and the care takers. In the past English breeders have practically controlled this market in the supply of breeding animals, but they can not continue to do so if American breeders will see to it that the animals have proper care and attention during the voyage.

CHIHUAHUA DOGS.

BREED BECOMING EXTINCT—PRICES HIGHER.

Consul-General A. L. M. Gottschalk, of Mexico City, in responding to numerous inquiries from persons in the United States in regard to the purchasing of Chihuahua dogs, says:

The Chihuahua dog, which as late as twenty-five years ago was quite commonly to be found in Mexico, is a curious little creature, popularly supposed to be a cross-breed between the prairie dog and the jack rabbit. The animal resembles a small dog, whose weight is

sometimes not over 1½ pounds, with a disproportionately large head, bulging eyes, and long ears. The hair is usually scanty, showing the pink skin underneath. One of the marks is said to be an unclosed cranial fissure, through which the brain can be felt throbbing underneath the skin. These little animals are particularly destructive, and are constantly scratching at things with their long claws. They are quite susceptible of taming, if taken young, and in numerous instances the breed has been domesticated, although they seldom show the usual dog traits of sagacious and intelligent attachment.

Unfortunately within the last twenty-five years the breed has become so largely mixed with small dogs of various mongrel types that it is now a most difficult thing to find in Mexico an example of the true breed. Such are sold occasionally at prices ranging from 200 Mexican pesos (\$99.60 United States currency) upward. Even in Chihuahua these dogs are very rare. A few recent specimens sold in this city are said to have been specimens of the true breed. [Dealer's name on file at Bureau of Manufactures.]

There is no commercial bird-fancying business in this city, and birds are not as abundant on the upper table-land of Mexico as they are in the more tropical coast regions. There are bird fanciers' stores in both Tampico and Vera Cruz, where inquiries on the subject may be directed.

HORSE PROTECTION IN GERMANY.

BLINKERS AND THE CHECKREIN SELDOM SEEN IN BERLIN.

Replying to an American letter relating to the efforts which are now being made to obtain the enactment of statutes to forbid the use of checkreins on horses in New York, and asking for information as to the laws bearing on the subject in Germany, Consul-General A. W. Thackara writes from Berlin:

According to the manager of the Berlin Society for the Prevention of Cruelty to Animals, an excellent organization, there are no laws, ordinances, or police regulations in Germany prohibiting the use of the checkrein on horses, with the exception of the police ordinances of Berlin. The only law in Germany, as far as this authority knows, which prohibits the illtreatment of animals, is that contained in the Imperial Penal Code, according to the provisions of which anyone who publicly cruelly tortures or maltreats an animal is liable to a fine not exceeding 150 marks (\$35.70) or to imprisonment of not over six weeks. Throwing stones or other hard bodies or mud at animals is also punishable by a fine not exceeding 60 marks (\$14.28) or an imprisonment of not over fourteen days. As the existing statutes are not regarded as sufficient to properly protect animals from cruel treatment, the various societies for the prevention of cruelty to animals in Germany are endeavoring to secure the enactment of new legislation which would provide them with more efficient legal support in their praiseworthy efforts.

A leaflet published by the same society makes it appear that laws of Germany for the protection of animals from cruelty are not as efficient as those of our different States. Although the societies and even a number of horse breeders and sportsmen deprecate the use of the checkrein, they have not been successful hitherto, with the fore-

going exception, in bringing about its abolishment. In 1905 the use of the checkrein was prohibited in the German Emperor's stables, and almost simultaneously with this prohibition the new police regulations of the city of Berlin, governing public cabs (*Droschken*), came into effect. According to the provisions of these regulations, the use of blinkers or of the checkrein on public cab horses was prohibited. In the streets of Berlin one now seldom sees a checkrein or blinkers on horses, except on a few belonging to private teams. This is, however, not the case throughout all of the Empire, as outside of Berlin, notwithstanding the efforts which have been made, the checkrein and blinkers are still used to a great extent.

MEERSCHAUM INDUSTRY PASSING.

AN IMPORTANT GERMAN TRADE EXPERIENCES SHORTAGE OF MATERIAL.

Consul George N. Ifft, of Annaberg, in stating that the passing of the German meerschaum industry seems inevitable, furnishes the following review of this trade:

From reports in current trade journals the industry is now facing a situation for which there seems to be no remedy, and the manufacturers of meerschaum pipes, cigar holders, etc., will have to go out of business or into some other line. They are unable to secure anything like an adequate supply of raw material, and for the trifling quantities they can secure must pay a greatly increased price. In the last three years prices of raw meerschaum have about doubled and, at the same time, America and England have secured control of practically all the meerschaum still to be had. Recently a small shipment has been received in Germany from Asia Minor—the first in some time. An advance of about 80 per cent in price followed immediately.

Practically all known deposits of meerschaum have been exhausted, it being now found only in the mines of Eski-Schehir, in Asia Minor, and the output there is very small. Agents of American and English manufacturers have secured control of this entire output, and German manufacturers can count on no more supplies from that source. In the last five months the price of raw meerschaum has advanced 50 per cent.

The manufacturing town of Ruhla, in the Thuringian forest, will be the most affected. There from 3,000 to 4,000 workmen have for years past been employed in this industry. A Ruhla specialty is the meerschaum pipe, and with it goes hand in hand the manufacture of pipe stems, pipe lids and mountings, cigar holders, and mouthpieces. The annual output averages about 27,000,000 pipe lids, 19,000,000 pipe cases, 15,000,000 pipe stems, 10,000,000 mouthpieces, 10,000,000 porcelain pipe bowls (covered), 5,500,000 imitation and 540,000 genuine meerschaum pipes with amber mouthpieces, 5,000,000 wooden pipe bowls, and 15,000,000 completed pipes—a production of the value of about 6,000,000 marks (\$1,428,000) per annum. The first meerschaum factories were founded in Ruhla in 1767. For the Ruhla the passing of the meerschaum industry is a blow from which it will scarcely be able to recover, practically the entire population being dependent upon this industry.

SCARCITY IN AUSTRIA.

Consul U. J. Ledoux makes the following report from Prague on the meerschaum supply in Austria:

According to reports from Germany, the manufacturers of meerschaum pipes and cigar holders are passing through a serious crisis on account of their being unable to secure sufficient raw material. It is claimed that during the past few years America and England have bought nearly all the meerschaum produced in Asia Minor.

This industry is quite extensive in Austria, but up to the present there has been no serious complaint regarding the lack of crude meerschaum, though the effect of such a scarcity may be seriously felt later. The production of amber is said to have considerably decreased during the past two years; and as the demand is presently greater than the supply, prices are steadily advancing.

CEMENT AND GYPSUM.

CUBA.

LARGE QUANTITIES ARE REQUIRED AT THE CITY OF CIENFUEGOS.

Consul M. J. Baehr writes that Portland cement is in good demand in Cuba, one dealer at Cienfuegos receiving 600 barrels monthly. The consul says:

During the fiscal year of 1905-6, 31,749 barrels of Portland cement were imported through Cienfuegos, 29,389 coming from the United States, 1,279 barrels from France, 639 from Germany, and 442 from Spain. Concrete is not yet extensively used in the construction of buildings. It is becoming popular, however, in bridge building and in the construction of pavements, sidewalks, and sewers. Last year this city contracted for a modern system of waterworks and sewers. The \$2,376,157 bid of a New York City contractor was accepted. Something like 50,000 barrels of cement will be required for this contract, and I understand that a commission merchant has already sold for the purpose 15,000 barrels. The present selling price per barrel ranges from \$3.75 to \$4 Spanish gold, worth 91 per cent at present. Cement comes in wooden packages only. The duty on a barrel of 100 kilograms from the United States, including the cost of the barrel, is 30 cents. The freight rates from New York, New Orleans, or Mobile are alike and range from 48 to 50 cents per barrel.

Manufacturers desiring to introduce a new brand of Portland cement in this market should, first of all, appoint an active local agent who is thoroughly acquainted with the conditions here, then assist him by quoting lowest prices and easiest terms possible. A good agent always deals with reliable firms, and they should not be required to pay for cement before it arrives, and should never be drawn on, as they invariably remit promptly on receipt or arrival of the goods. Names of cement dealers and extensive builders at Cienfuegos are on file at the Bureau of Manufactures.

ARGENTINA.

SALES OF GYPSUM.

Consul T. B. Van Horne, of Rosario, writes that no gypsum is produced in Argentina, the same being imported from France, England, and the United States. There is not a great demand for the product in Rosario, but a large amount is used by the "Bodrgueros" of the wine-producing provinces of Mendoza, San Juan, and Rioja. Although these provinces are in his consular district, they receive the greater portion of their supply of gypsum from Buenos Aires. The duty is 3 cents gold per 22 pounds. [The name of the firm importing gypsum at Rosario is indexed at the Bureau of Manufactures.]

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CONSULAR AND TRADE PUBLICATIONS.

The publications made up chiefly of reports from United States consular officers in foreign countries include the following:

COMMERCIAL RELATIONS, being the annual reports of consular officers on the commerce, industries, navigation, etc., of their districts.

REVIEW OF WORLD'S COMMERCE, being a summary of the annual reports contained in **COMMERCIAL RELATIONS**.

DAILY CONSULAR AND TRADE REPORTS, issued daily, except Sundays and legal holidays, mailed gratuitously to commercial and industrial organizations, manufacturers, exporters, and the press.

MONTHLY CONSULAR AND TRADE REPORTS, compiled from the daily, and issued every month with index.

SPECIAL CONSULAR REPORTS, on particular subjects, made in pursuance to instructions from the Departments of State and of Commerce and Labor.

Until July, 1903, all Consular Reports were issued by the Bureau of Foreign Commerce of the Department of State; from that date until June, 1905, they were issued by the Bureau of Statistics of the Department of Commerce and Labor, with which the Bureau of Foreign Commerce of the Department of State was consolidated July 1, 1903; since July 1, 1905, they have been issued by the Bureau of Manufactures, Department of Commerce and Labor. For details of these publications, and the reports remaining for distribution, address "Chief, Bureau of Manufactures, Department of Commerce and Labor, Washington, D. C."

The publication of reports on specific subjects, in separate form, was begun in 1890. The editions of many of them are exhausted. The following titles are available for distribution.

Vol. 20 (1900).—Part I. Book Cloth in Foreign Countries; Market for Ready-Made Clothing in Latin America; Foreign Imports of American Tobacco; Cigar and Cigarette Industry in Latin America.
Vol. 23 (1901).—Part I. Gas and Oil Engines.
Vol. 24 (1902).—Cruiseries in Foreign Countries.
Vol. 25 (1902).—Stored Goods as Collateral for Loans.
Vol. 26 (1903).—Briquettes as Fuel in Foreign Countries.
Vol. 27 (1903).—Markets for Agricultural Implements and Vehicles.
Vol. 30 (1904).—Emigration to the United States.
Vol. 32 (1904).—Foreign Markets for American Fruits.

A few copies of reports made by special agents on trade conditions in the countries visited by them are also available, as follows:

Brazil.
China.
Cuba.

Egypt.
India.

Japan and Korea.
Mexico.

"Trade with China" is a pamphlet of 110 pages, illustrated, with an introductory chapter on Packing. It is compiled from reports made by special agents which were printed in Daily and Monthly Consular and Trade Reports. A few copies are available.

Of the **MONTHLY CONSULAR REPORTS**, many numbers are exhausted or so reduced that the Department is unable to accede to requests for copies. Of the publications available for distribution, copies are mailed to applicants without charge. In view of the scarcity of certain numbers, the Department will be grateful for the return of any copies of the Monthly or special reports which recipients do not care to retain. Upon notification of willingness to return such copies, franking labels to be used in lieu of postage in the United States, the Philippine Islands, Hawaii, and Porto Rico will be forwarded.

Persons receiving **CONSULAR REPORTS** regularly, who change their addresses, should give the old as well as the new address in notifying the Bureau of the fact.

All communications relating to **CONSULAR REPORTS** should be addressed, "Chief, Bureau of Manufactures, Department of Commerce and Labor, Washington, D. C."

VALUES OF FOREIGN COINS AND CURRENCIES.

[As given by the Director of U. S. Mint and published by Secretary of the Treasury April 1, 1907.]

COUNTRIES WITH FIXED CURRENCIES.

Countries.	Monetary unit.	Value in U. S. gold.	Coins.
Argentina	Peso	\$0.96, 5	Gold—argentine (\$4.82, 4) and $\frac{1}{2}$ argentine; silver—peso and divisions.
Austria-Hungary	Crown	.20, 3	Gold—20 crowns (\$4.05, 2) and 10 crowns; silver—1 and 5 crowns.
Belgium	Franc	.19, 3	Gold—10 and 20 francs; silver—5 francs.
Bolivia	Peso ^a	.9733	Gold sovereign (pound sterling) and $\frac{1}{2}$ sovereign; silver, 10, 20, and 50 centavos.
Brazil	Milreis	.54, 6	Gold—5, 10, and 20 milreis; silver— $\frac{1}{4}$, 1, and 2 milreis.
British N. A. (except Newfoundland)	Dollar	1.00	
British Honduras	do	1.00	
Chile	Peso	.86, 5	Gold—escudo (\$1.82, 5), doubloon (\$3.65), and condor (\$7.30); silver—peso and divisions.
Colombia	Dollar	1.00	Gold—condor (\$9.64, 7) and double condor; silver—peso.
Costa Rica	Colon	.46, 5	Gold—2, 5, 10, and 20 colons (\$9.30, 7); silver—5, 10, 25, and 50 centimos.
Denmark	Crown	.26, 8	Gold—10 and 20 crowns.
Ecuador	Sucre	.48, 7	Gold—10 sucres (\$4.8665); silver—sucre and divisions.
Egypt	Pound (100 piasters)	4.94, 3	Gold—5, 10, 20, and 50 piasters; silver—1, 2, 5, 10, and 20 piasters.
Finland	Mark	.19, 3	Gold—10 and 20 marks (\$1.93 and \$3.85, 9).
France	Franc	.19, 3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Germany	Mark	.23, 8	Gold—5, 10, and 20 marks.
Great Britain	Pound sterling	4.86, 61	Gold—sovereign (£) and half sovereign.
Greece	Drachma	.19, 3	Gold—5, 10, 20, 50, and 100 drachmas; silver—5 drachmas.
Haiti	Gourde	.96, 5	1, 2, 5, and 10 gourdes; silver—gourdes and divisions.
India	Pound sterling ^b	4.86, 61	Gold—sovereign (£); silver—rupee and divisions.
Italy	Lira	.19, 3	Gold—5, 10, 20, 50, and 100 lire; silver—5 lire.
Japan	Yen	.49, 8	Gold—5, 10, and 20 yen; silver—10, 20, and 50 sen.
Liberia	Dollar	1.00	
Mexico	Peso ^c	.49, 8	Gold—5 and 10 pesos; silver—dollar ^d or peso and divisions.
Netherlands	Florin	.40, 2	Gold—10 florins; silver— $\frac{1}{4}$, 1, and 2 $\frac{1}{2}$ florins.
Newfoundland	Dollar	1.01, 4	Gold—\$2 (\$2.02, 7).
Norway	Crown	.26, 8	Gold—10 and 20 crowns.
Panama	Balboa	1.00	Gold—1, 2 $\frac{1}{2}$, 5, 10, and 20 balboas; silver—peso and divisions.
Peru	Libra	4.86, 61	Gold— $\frac{1}{4}$ and 1 libra; silver—sol and divisions.
Philippine Islands	Peso	.50	Silver—peso, 50, 20, and 10 centavos.
Portugal	Milreis	1.08	Gold—1, 2, 5, and 10 milreis.
Russia	Ruble	.51, 5	Gold—5, 7 $\frac{1}{2}$, 10, and 15 rubles; silver—5, 10, 15, 20, 25, 50, and 100 copeks.
Spain	Peseta	.19, 3	Gold—25 pesetas; silver—5 pesetas.
Sweden	Crown	.26, 8	Gold—10 and 20 crowns.
Switzerland	Franc	.19, 3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Turkey	Piaster	.04, 4	Gold—25, 50, 100, 250, and 500 piasters.
Uruguay	Peso	1.03, 4	Gold—peso; silver—peso and divisions.
Venezuela	Bolivar	.19, 3	Gold—5, 10, 20, 50, and 100 bolivars; silver—5 bolivars.

^a Peso, $\frac{1}{4}$ of pound sterling.^b The rupee, \$0.3244 $\frac{1}{4}$, 15 to the sovereign, constitutes the money of account.^c Seventy-five centigrams fine gold.^d Value in Mexico, \$0.498.

DEPARTMENT OF COMMERCE AND LABOR
BUREAU OF MANUFACTURES

MONTHLY
CONSULAR AND TRADE
REPORTS

JULY, 1907

No. 322



WASHINGTON
GOVERNMENT PRINTING OFFICE
1907

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ASIA.

CHINESE EMPIRE.

NEWCHWANG'S FOREIGN TRADE.

DECREASE IN IMPORTS AND THE CAUSES—MANCHURIAN CONDITIONS.

Vice-Consul Albert W. Pontius transmits the following report covering the imports of foreign products into Newchwang in 1906 and the conditions which prevailed in Manchuria in that year, whereby the imports were less than one-half those of 1905:

While the decrease in imports in 1906 may be partly attributable to the large imports of 1905, the imports through Dalny and Vladivostok had their influence in this trade depression. Owing to the fact that no duties were levied at the port of Dalny, and to the low railway rates prevailing, it is certain that Japanese merchants made the most of their opportunity during the Japanese military occupation. The unsettled condition of the country around Harbin caused the accumulation of large stocks of goods at that place also.

In February, 1906, when trade began to improve, and when hopes for its continued improvement were entertained, high prices for native products commenced to prevail, and the dealers in foreign goods in the interior began to speculate in beans, beancake, and bean oil, instead of, as usual, paying the Newchwang dealer for the foreign goods received. This left the Newchwang dealer unable to pay the Shanghai dealer, which left the latter unable to fulfill his contracts, forcing him, in many cases, to countermand orders already given.

Although the trade in foreign goods in 1906 was not what it should have been, the trade in native goods was considered satisfactory. It is evident, therefore, that Manchuria is in a prosperous condition. A large number of permanent immigrants have settled in the country, and this in itself suggests a prosperous future.

IMPORTS OF FOREIGN GOODS.

The total imports of foreign goods at Newchwang in 1906 were as follows: From foreign countries direct, \$4,807,200; from Chinese ports, \$6,371,400, of which \$6,000,000 were from Shanghai; total imports, \$11,178,600, of which \$247,000 worth was reexported. The imports of foreign goods in 1905 amounted to \$22,632,300, or more than double the value of the imports of 1906. The imports of 1905 were nearly double those of 1904, which would go to show that

the excessive imports of 1905 were, in a great measure, the cause of the relatively small imports in 1906.

The imports from foreign countries direct in 1906 were as follows: Japan, \$1,865,800; Hongkong, \$1,854,800; the United States, \$868,200; the United Kingdom, \$100,700; Russia, \$27,800; France, \$20,600; Germany, \$11,200; all other countries, \$58,100; total, \$4,807,200, which were brought in steamships of the following nationalities: Japanese, \$1,813,800; British, \$1,682,100; Norwegian, \$697,200; American, \$312,500; German, \$112,800; Swedish, \$99,700; and Chinese, \$89,100. The following table shows the leading articles composing the imports of foreign goods in 1906:

Articles.	Value.	Articles.	Value.
Cotton manufactures:		Woolen goods.....	\$248,500
American flannels.....	\$41,900	Metals and their manufactures,	
All other flannels.....	3,400	chiefly iron and steel.....	728,400
American drills.....	218,100	Candles.....	106,300
All other drills.....	600	China ware, coarse and fine.....	70,800
American jeans.....	230,200	Clocks and watches.....	77,800
All other jeans.....	16,000	Dyes of all sorts.....	408,000
American sheetings.....	896,900	Enameled ware.....	91,300
All other sheetings.....	9,400	Flour.....	718,400
American shirtings.....	80,100	Kerosene (American, \$96,800).....	150,800
All other shirtings.....	134,200	Medicine.....	105,600
Total American.....	1,467,200	Paper.....	805,100
Total all other.....	163,600	Soap.....	95,800
Italians of all sorts.....	812,100	Household stores.....	151,000
Yarns, nearly all Indian.....	1,509,900	Sugar.....	850,600
All other cottons.....	968,900	Timber, soft.....	304,200
Total cottons.....	4,921,700	All other articles.....	1,750,000
		Total imports.....	11,178,800

[The import statistics of Newchwang last year, treated in exhaustive detail by the vice-consul, may be consulted at the Bureau of Manufactures.]

BANKING AND CURRENCY.

The past year was unsuccessful for Chinese banks. Some four or five have been forced into liquidation, but this year bright prospects are in view for all the banking institutions. The two foreign banks, the Russo-Chinese and Yokohama Specie, may be supplemented by a branch of the Chartered Bank of India, Australia, and China, which is figuring on that step. With reference to bank notes, it is evident that their convenience appeals to the Manchurian trader, and he would readily accept them if redeemable at face value in Mexican dollars. As yet no note fulfills these conditions. The output of the Mukden mint for 1906 was, in gold value, \$28,828,800 in copper coins of 10 cash each.

The currency of this district consists of sycee taels, transfer taels, Mexican dollars, small money, war notes, and Yokohama Specie Bank notes. The ruble note, which was quite common during the Russian occupation, has practically disappeared. In the sycee tael, for purposes of comparison, the exchange on Shanghai, on demand, is usually quoted. Transfer taels, usually termed "transfer money," is purely a nominal currency, or in other words, a credit, and constitutes the medium by which rates and prices are generally quoted among the native merchants in the absence of sufficient sycee (silver) or other approved circulating medium. Nearly all the import business is carried on by means of transfer money; native bankers and mer-

chants keeping accounts in Shanghai, where differences in sycee are adjusted from time to time. There is reason to suppose, however, that with the advent of more foreign banks, followed by an increase in the stock in sycee and a ready circulating medium in the form of bank notes, which has been Newchwang's greatest drawback in the past, transfer money will be abolished and hard sycee form the basis of all operations.

POPULARITY OF MEXICAN DOLLAR.

Mexican dollars are rather scarce, but will undoubtedly be more prevalent when more foreign banks are established. The reason for this is attributed to the large number of notes of various denominations which are in circulation; but as the Chinese prefer the Mexican dollar, it is sure to find its way back again. Small money is in Mexican denominations of 10 and 20 cent pieces and is increasing in circulation. This currency is chiefly used in the interior and in paying coolies. It is quoted at about 12 per cent discount, viz, \$100 small coins is equivalent to about Mexican \$88. War notes are being gradually withdrawn and replaced by a similar note called the "Yokohama specie bank note," on which appear "Local currency," but as this bank has on occasions found it inconvenient to cash these notes, they have fallen to a discount and are worth 4 per cent less than the Mexican dollar.

CITY IMPROVEMENTS—FUEL AND MANUFACTURING.

On December 6, the control of Newchwang reverted to the Chinese Government, after six and one-half years of alien occupation. In the rendition agreement it was stipulated that companies should be formed to take over the telephone service, supply electric light, tramways, and water. The telephone service is in need of improvement, and the lack of a proper water supply is also a serious question. An attempt was made to sink an artesian well during the occupation, but resulted in a complete failure. The coal question is also an important item. The railway mines only supply enough coal for their own needs, so Newchwang must look elsewhere for its supply. Several cheap qualities of soft coal are obtainable, but the best is an anthracite coal which is shipped from Honan Province. This variety retails for about \$12 gold per ton.

The only manufacturing plants in Newchwang of any consequence are those which manufacture bean oil and bean cake from beans. At present there are six of these plants operated by steam and several score operated by hand. Three more steam plants will be erected during this year. All the steam bean-oil manufacturers have realized a profit during the past year, but the others, who operate with crude methods, have scarcely made expenses.

AGRICULTURAL PRODUCTS.

During the year about a 70 per cent crop was realized by the natives in this district. Sixty per cent of the flat and tillable land throughout this consular district is used for the cultivation of kaoliang (tall millet). Some cotton is grown in the Yichow and Kuangning districts. This cotton is considered by the Chinese to be of excellent quality and always finds a ready market, being preferred to other varieties. The best cultivated lands are in the district of Haicheng,

where kaoliang (tall millet), small millet, wheat, beans, and dry rice are grown.

Nearly one-half of the district of Kaichow is of a mountainous nature. Kaoliang, wheat, beans, and small millet are raised in the lowlands. In the mountainous region trees closely resembling oak are planted. These are used exclusively for silk worms. The best native silk and silk cocoons are obtained from the Tungshan or Eastern Mountains. The district of Hsu Yen is of the same nature as Kaichow, its principal products being silk and grains.

MINING COAL, GOLD, AND JADE.

Very little information on this score is obtainable. During the year the Imperial Chinese Railways opened a coal mine at Hsin Chiu, a place north of Kuangning district, but its output is unknown. Gold mines are reported to have been discovered in that vicinity. At Chinchow a coal mine is worked by native process. An attempt was made to introduce foreign machinery at this place, but for some reason or other the project failed. The Japanese have a mine at Wa Fang Tien that is reported to be of great wealth. Both coal and gold are mined.

The only jade-stone mine in this district is at Hsu Yen. The output is not very large, but the stone is of a first-class quality.

COMMERCE OF HANKOW.

TRADE CONDITIONS IN THAT CHINESE DISTRICT UNFAVORABLE.

Consul-General William Martin furnishes the following information concerning the foreign commerce of the Hankow, China, consular district in 1906:

Early indications were that 1906 would be very prosperous throughout the Hankow consular district, but in the beginning of the year destructive floods spread over vast areas, crops for miles and miles were absolutely ruined, many lives were lost, hunger and want took the place of anticipated plenty, and following the floods came a spirit of unrest. In addition to all this, exchange rose higher and higher, and the Chinese demanded increased prices for their commodities, so that 1906 closed with business almost at a standstill.

The net value of trade for 1906, imports and exports, was \$76,803,714, showing a decrease of \$3,146,719 compared with 1905, due to the continued rise in exchange. The greatest falling off during 1906 was in the exports of local origin, the decrease being about \$7,250,000, caused chiefly by the smaller purchases by the foreign exporting firms, who preferred to do nothing rather than purchase at the prevailing rates of exchange. The decrease in exports as compared with 1905, were of almost the same percentage as the increased rates of exchange in 1906. The exports decreased 10 per cent, while the exchange increased from 71.5 cents in 1905 to 80 cents in 1906 for the tael. Imports of foreign goods show a small increase over 1905, but the sales of foreign goods have been much greater than the import returns would manifest, as large stocks were in many instances carried over from 1905.

The revenue of the port shows an increase in import duties, being \$329,287 against \$250,682 in 1905. The export duties remained about

the same, but the high rate of exchange in 1906 makes an increase of \$80,805 over that of 1905.

Shipping showed a healthy growth, the tonnage entered and cleared in 1906 being 4,291,424, against 3,974,739 tons in 1905. This is accounted for by the increased number of large river steamers, French and British, and the larger number of ocean-going vessels now arriving during the high-water season in summer. Late advices state that from March 1, 1907, the London Homeward Conference has agreed to charge the same rate from Hankow as from Shanghai to Europe for steamers loading at Hankow, so that it is quite probable that a greater number of ocean-going vessels will now visit this port, as shippers will reap a great advantage by being able to load here for direct shipment, and so avoid river freight and transshipping charges in Shanghai.

SOME FEATURES OF THE EXPORT TRADE.

Both cow hides and buffalo hides show a large increase in the quantities exported—14,335,733 pounds in 1906, against 11,708,600 pounds in 1905. Of these, \$281,750 worth (in gold) were shipped direct to the United States in 1905 and \$207,154 worth in 1906. The falling off in the value of cow hides invoiced from here to the United States is due to the fact that the best hides come from Hunan and Hupeh, in this district, and the shippers find it to their advantage to send them to Shanghai, where they are mixed with an inferior grade of hides and then forwarded to their foreign destination as first-class hides. There seems to be very little call from American firms for buffalo hides, probably owing to their coarser quality, but the demand from Europe is growing, as the export returns show an increase from 2,807,333 pounds in 1905 to 3,881,067 pounds in 1906. The number of goatskins exported from Hankow in 1905 was 2,467,911, while in 1906 the number increased to 3,771,724. American buyers were heavy purchasers during 1906, there being \$723,546 worth shipped to the United States, against \$484,352 worth in 1905. Although the goatskins of China are inferior to those of the United States, the demand is apparently growing, because, I am told, the American skins are used for a better class of goods, such as pocketbooks, cases, and book covers.

There is an increasing local demand for vegetable tallow, and a continued strong demand from foreign countries therefor. The exports in 1906 amounted to 26,872,533 pounds, against 20,159,200 pounds in 1905. This article is being packed much better now than formerly, and dealers are experiencing less loss by adulteration.

INCREASE IN WOOD OIL—DECREASE IN COTTON.

The demand for wood oil seems to be increasing, and the high exchange of 1906 had little or no effect on the buyers, although greater quantities would probably have been purchased had the market been more favorable. In the list of articles invoiced out of this office for the United States wood oil shows a larger increase than any other product—from \$337,234 in 1905 to \$720,598 in 1906, a New York house being the largest buyer. The total amount of wood oil shipped from Hankow during 1906 was 58,550,933 pounds, against 48,203,067 pounds in 1905. Foreign buyers seem to experience little difficulty in getting any amount they desire, as there is always a large quantity

on the market during the seasons it is offered, that which is not bought up by foreign merchants being diverted to the manufacture of Chinese varnishes.

Owing to the immense areas flooded, both in Hunan and Honan, during the summer of 1906, the cotton crop of these provinces suffered extremely, the production being only about 50 per cent of the previous year. The exports from here have consequently decreased enormously—519,067 pounds in 1906, against 2,218,667 pounds in 1905. I am informed, however, that part of this falling off is due to the fact that the Wuchang mills are using much larger quantities now in the manufacturing of uniforms for the Chinese army, and that there is a larger demand than usual from natives in the interior for hand spinning, resulting in higher prices. This, combined with the high exchange, caused the mills of Japan to buy more American and Indian cotton than in 1905.

An increasing demand for sesamum seed continues to come from Europe, the exports in 1906 amounting to 144,886,133 pounds, against 97,087,200 pounds in 1905.

IMPORTS AT HANKOW.

The imports of foreign goods at Hankow in 1906 were as follows:

Articles.	From foreign countries and Hongkong.	From Chinese ports, principally Shanghai.	Articles.	From foreign countries and Hongkong.	From Chinese ports, principally Shanghai.
Cotton goods:			Metals—Continued.		
Shirts—			Tin, plates chiefly ...	\$205,168	\$90,985
Gray	\$6,212	\$1,457,687	Lead, pigs and bars chiefly	49,743	75,570
White	4,636	1,299,048	All other metals	19,658	63,747
Sheetings, gray	4,436	382,544	Sundries:		
Drills	4,684	800,584	Bags	89,611	127,608
Jeans	3,840	128,001	Cigarettes	103,708	6,460
T-cloths, plain and printed	16,149	847,151	Electric goods	57,570	5,065
Notions, black, fast	18,806	1,084,996	Glass and glassware	21,015	61,654
Lastings, plain and figured	35,580	567,893	Machinery and fittings	642,231	96,856
Flannels, dyed and striped	3,368	134,231	Medicines	190,651	24,469
All other cotton goods	\$1,060	224,908	Oil, kerosene:		
Total cotton goods	128,673	6,397,038	American	578,726	162,108
Yarns	366,180	5,964,242	Other	480,824	111,016
Woolen goods	28,407	425,873	Railway materials	3,577,320	129,664
Miscellaneous piece goods	\$1,483	67,856	Sugar and candy	1,768,503	719,553
Metals:			Tea dust, Ceylonese	917,624	122
Copper, ingots, slabs, disks, etc	621,806	695,855	All other miscellaneous goods	2,674,355	1,323,239
Iron and steel goods	148,105	363,100	Total net imports	12,941,061	16,911,515

IMPORTS OF AMERICAN GOODS.

Hankow being an inland port it is a very difficult matter to get accurate information as to the exact amounts of foreign imports entered here, and it is especially hard to ascertain the country of origin of most of these foreign articles, as they are for the most part tabulated in the customs returns as imports from Chinese ports, because they have been transhipped at Shanghai. American kerosene oil sales increased 51 per cent in 1906 as compared with 1905, and amounted to 9,638,359 gallons, while from Borneo came 11,170,281 gallons, from Russia (case oil) 190,500 gallons, and Sumatra 30,000 gallons, making a total of 21,029,140 gallons, as compared with 26,685,887 gallons in 1905, but the oils brought forward from 1905

to 1906 were 11,000,000 gallons, while only 2,540,000 gallons have been carried over from 1906 to 1907. Deliveries for consumption of all oils increased about 25 per cent during 1906, viz, 28,250,000 gallons against 22,520,000 gallons in 1905. Of the former quantity 13,700,000 gallons were American oils.

The conditions of the American piece-goods market can not be judged well at this inland port, but the consumption seems to be quite satisfactory. Customs returns show :

Year.	Sheetings.	Drills.	Jeans.	T-cloths.	Total.
1905.....	\$180,620	\$900,010	\$5,841	.....	\$766,471
1906.....	135,424	751,251	16,684	\$4,150	913,509

EXPORTS FROM HANKOW IN 1906.

Articles.	To foreign countries and Hongkong.	To other Chinese ports.	Articles.	To foreign countries and Hongkong.	To other Chinese ports.
Albumen.....	\$14,976	\$186,483	Seed:		
Antimony, crude and ore.....	419,344	124,295	Sesamum.....	\$765,797	\$2,839,250
Bean cake.....	219,578	908,741	All other.....	131,800	216,458
Beans.....	72,758	3,159,930	Silk:		
Bristles.....	29,550	569,620	Raw, yellow, and white.....	6,771	1,369,680
Cloth, native.....	267	267,228	Cocoons, pongees, etc.	46,180	467,749
Cotton:			Skins:		
Raw.....	269,259	1,371,789	Goat.....	224,505	1,314,456
Shirtings.....		200,018	Sheep and lamb.....		439,994
Egg yolk.....	14,324	175,280	All other.....	1,664	140,108
Fungus.....	45,909	403,784	Tallow, vegetable.....	105,874	1,314,536
Hides, buffalo.....	83,339	327,396	Tea.....	3,377,916	2,009,155
Horns, cow.....	673,534	1,826,930	Brick tea.....	1,332,302	3,609,045
Iron, pig and manufactured.....	595,890	207,520	All other, stalk, dust, etc.....	63,038	807,135
Medicines.....	241,567	854,119	Tobacco:		
Nutgalls.....	250,701	486,458	Leaf.....	6,462	745,816
Oil:			Prepared.....	28,047	739,357
Bean, sesamum, and tea.....	18,230	212,081	Varnish.....	185,568	367,596
Wood.....	61,721	3,288,172	Wax.....	30,671	119,914
Opium.....	512,417		Wood.....	273	388,712
Paper.....	19,707	248,045	Yarn, cotton.....	25,709	1,118,964
Ramie.....	207,914	1,239,090	All other articles.....	802,704	3,662,821
Rice.....	158,081	49,969	Total exports.....	10,044,232	37,262,664

EXPORTS TO THE UNITED STATES.

The following was the value of exports declared at Hankow for the United States in the calendar years 1905 and 1906:

Articles.	1905.	1906.	Articles.	1905.	1906.
Albumen.....	\$12,647	\$5,821	Jute.....	\$2,580	\$40,882
Antimony.....	3,961	7,002	Nut oil.....	337,234	720,596
Bristles.....	58,071	76,999	Sheepskins.....	2,087	3,383
Calfskins.....		89,637	Tea.....	257,263	243,696
Cowhides.....	261,750	207,154	Wool.....	208	2,425
Egret feathers.....		1,274	All other.....	33,144	302,529
Gallnuts.....	30,110	10,755	Total.....	1,488,337	2,385,703
Goatskins.....	484,352	723,546			

JAPANESE AND BRITISH STEAMER LINES.

Another matter of interest to shippers is the recent combine of the four Japanese steamship concerns plying the Yangtze River. The promoters have combined the Taito and Hunan steamship companies

with the Yangtze services of the Osaka Shosen Kaisha and the Nippon Yusen Kaisha. The amalgamated company will receive Government subsidies amounting to \$400,000 gold, an increase of \$150,000 over the amount previously received by the separate companies. Its fleet will consist of 15 steamers and 16 tugs, owned by the Taito Steamship Company, 3 steamers owned by the Hunan Steamship Company, 6 steamers used by the Osaka Shosen Kaisha, and 2 steamers used by the Nippon Yusen, and 4 steamers to be newly built. The company will have a capital of \$6,000,000 and will ply not only on the Yangtze but from Shanghai up and down the China coast.

Trade with Changsha and Ichang has increased very noticeably, especially the business with the former port. Low water stops all trade with Changsha for about three months in the winter, steamers making their last trips in the latter part of November and resuming the run late in February. Three lines now run regularly between here and both Ichang and Changsha—two British lines and one Japanese line.

THE KWANTUNG PENINSULA.

COMMERCE OF DALNY AND ITS FUTURE BUSINESS PROSPECTS.

In reviewing the trade situation and outlook for Dalny and surrounding country, Vice-Consul P. S. Heintzleman says it is necessary to bear in mind that the region, viewed in the light of foreign commercial interests, is practically new. He writes:

Indications are that Dalny will develop into a prosperous commercial city. With its commodious harbor, superb shipping facilities, and railway extending through the heart of Manchuria into its northern districts, it apparently possesses all or nearly all of the most essential requisites for becoming a commercial center of no mean importance. This is one of the finest deep-water harbors of the Pacific, as it is free from ice during all seasons of the year, and ships drawing 30 feet can enter at low tide without any difficulty and, even without the aid of a pilot, steam alongside the piers and docks, well protected by a breakwater, where their cargoes can be loaded directly into cars that run into all the large trading centers of Manchuria. The surface of the bay comprises many square miles, and the deep-water area is sufficient to handle the shipping of all North China. The rise and fall of tide does not exceed 11 feet. The harbor possesses 5 large piers, varying in width from 60 feet to several hundred feet, and in length from a quarter of a mile to half a mile, two of them being supplied with lines of railway tracks, numerous warehouses and storage sheds, and electric lights. There is abundance of room in the harbor and sufficient depth of water to provide for any number of piers desired. A large breakwater is constructed across the front of the piers, so that ships can lie at the piers and load and unload regardless of the weather. Docks for foreign vessels, steam and sail, extend between these piers and along the shore for 2 miles. There are two first-class dry docks; one is intended for ordinary ocean steamers, and the other can accommodate the largest vessels of commerce or war.

AN ECONOMICAL SHIPPING PORT.

The ease of entrance into the harbor at all seasons of the year, the small amount of labor required to transfer goods from the ocean

vessels to the cars, the low-priced cooly service, and the policy of low freight charges already adopted by the new South Manchuria Railway Company, combine to make this one of the most economical shipping ports of the Orient, and a wise policy of railway administration should develop a trade of such large proportions as would create here one of the greatest commercial points on the Pacific. The accomplishment of these results will take considerable time, though not necessarily involving a large outlay of money on the part of the Japanese Government. Radical changes, incurring great expense, will have to be effected on the South Manchuria Railway, which is really the key to the success of this port. The railway after being conveniently connected with the Russian portion of the line in north Manchuria, thereby opening a through traffic, will have a most powerful bearing upon the commercial development of Dalny and, indeed, upon the successful exploitation of Japan's commercial enterprises throughout all Manchuria.

AMERICAN FLOUR IN MANCHURIA.

The United States is supplying practically all the flour used in Manchuria. Large cargoes are discharged daily by the fifteen or more steamers plying regularly between Japanese ports and Dalny, and loaded at once into freight cars to be transported into the interior. Whole trains, consisting of dozens of freight cars, laden only with flour from the Pacific slope of the United States can be observed here at any time. Recently in one day 133,000 bags of flour, destined to Yingkow, were landed in Dalny, as the waterway at the former port was frozen over. During the first ten days in December last 496,640 bags of flour were transported into northern Manchuria by train, nearly 1,500 cars being used for this purpose. Thus, when Newchwang is closed by ice, a greatly increased amount of flour is imported into Dalny, to be transshipped into the interior. In my opinion no fear need be entertained at present by the American flour interests that their hold on this market is being threatened by Japanese or Russian competition. Japan can not at present attempt any serious competition with the United States for the control of this great and ever-increasing market, while the wheat growing and milling facilities of the Russians in eastern Siberia are inadequate at present to threaten our Manchurian flour trade.

COTTON GOODS, OIL, TOBACCO, AND BEANS.

Japan is apparently making efforts to capture the cotton-goods trade. The Government is lending financial assistance to the development of this industry. The principal consumer of Japanese cottons is China; and Manchuria, which is now being so extensively exploited by Japan, will become its great cotton-trade center in China in the near future. There is but one firm in Dalny importing cottons, the Mitsui Bussan Kaisha, the largest, richest, and most influential commercial concern of Japan. This company is putting forth strenuous efforts to control the cotton-goods trade of Manchuria, and is importing large quantities from Bombay, via Moji, and from Japan direct. Its large importations into Dalny during 1906 are shown by the following figures: Cotton goods, 22,642 bales, valued at \$1,252,279; cotton yarn, 26,079 bales, valued at \$1,458,332; total, \$2,710,611. It may be that in a short time the Chinese will undertake the control of this business.

Nearly all the oil imported now is American, a small shipment of the Sumatra product having made its first appearance in October, some of which is still lying in a godown here, there being no market for it in this region. The demand for the American illuminant in Manchuria is on a steady increase, as may be noted in the values of the monthly importations, from \$8,000 in September to \$28,340 in November, 1906.

BUILDING MATERIALS.

The Japanese are following out the Russian or European styles in fitting or furnishing their houses in the big cities of Manchuria. Though the greater part of the lumber now used in Manchuria comes from the Yalu, it is generally recognized by those well acquainted with the qualities of timber that the Yalu product is greatly inferior to the American and can not compete successfully with it. Great quantities of logs from the Yalu are brought to Dalny by steamer and here sawed by hand into boards and planks. This method of preparing the timber for market also places it at a disadvantage with the American machine-sawed product. The total value of lumber imported into Dalny during the three months of September, October, and November was \$129,920. A cargo of Oregon pine consigned to Dalny could not be landed in October owing to lack of space on the piers, so that the steamer was obliged to proceed to Newchwang to discharge.

OPPORTUNITIES FOR AMERICAN MERCHANTS.

Dalny, provided it is destined to become the business center of this region, will offer a splendid opportunity for the establishment of new business enterprises by reliable American firms marketing the great variety and quantity of our national products which are suited to this region. But here I wish to reiterate the idea already advanced in this report that, the situation in Manchuria being as yet very far from normal, it is at present impossible to declare definitely that the future success of this port is assured. The various facts herein set forth, if carefully collated, suffice to indicate that Japan's commerce with Manchuria through the port of Dalny is of importance. The most pessimistic will admit that a considerable volume of trade will always be conducted here, but whether it will ever reach the enormous proportions Japan's most ardent wellwishers would have the world believe is a question which time alone will decide.

While observing the gradual changes in the trade development of Dalny, it is advisable for American mercantile firms interested in the trade of this region to have agents representing them here and at the various inland towns of Manchuria. These agents should be American citizens familiar with our national products and business methods.

KIAOCHOW AND SHANTUNG.

AMERICAN TRADE AND OPPORTUNITIES FOR FURTHER INCREASE.

Reporting on the great improvements, commercially and industrially, which have taken place in the German colony of Kiaochow and the adjoining Chinese Province of Shantung, Consul Wilbur T. Gracey, of Tsingtau, writes as follows:

While Kiaochow, in a commercial sense, may not be the most promising territory in the Far East, there is undoubtedly a trade

here which, if properly exploited, could be made to yield very satisfactory results. The territory, both within the German colony and the adjoining Chinese Province of Shantung, is undergoing a remarkable process of development, and it will be many years before the maximum consuming power of the inhabitants is reached. The territory covered through the port of Tsingtau, the chief city of the Kiaochow colony, is an entirely new one for foreign trade, and previous to the opening of the country by the Germans eight years ago, when they acquired it from the Chinese Government, the importation and use of foreign goods were practically a negligible quantity. During these past eight years, however, a considerable trade has been built up and is continually increasing, as shown by the customs returns. A railway line has been completed connecting Tsingtau and its exceedingly fine harbor with Chinanfu, the capital of the Chinese Province of Shantung.

IMPORTS AND EXPORTS AT TSINGTAU.

The principal articles of import up to the present have been kerosene oil, gray English shirtings, American sheetings, T cloths, chintzes, cotton Italians, cotton yarns, brass buttons, aniline dyes, matches, and various other articles. The exports are principally bean cake, felt caps, peanuts, bean and peanut oil, fresh pears and other fruits, fresh vegetables, hides, skins, straw braid, and coal.

Most of the articles of import are supplied from Germany and the Continent, but there seems to be no reason why they could not be more easily supplied from the United States, which is certainly more conveniently reached. Undoubtedly the fact that the shipping is almost entirely German has its effect on the importations, and while there are no preferential rates or treatment in favor of Germans, the colony is being exploited in every way by the German Government and every advantage is given to German residents to enter into business enterprises. The sailors from the men-of-war are allowed to resign and remain in the colony, and the Government does all in its power to keep them here by purchasing all its supplies, etc., on the spot and thereby encouraging local trade.

Almost all the business firms here are German, the only exception being one British straw-braid firm, which entered the territory this past year and now competes with the German buyers. They have been most successful in their undertaking, and during the six months since the firm has been established they have purchased about 60 per cent of the total amount of straw braid exported. A very large portion of this straw braid is exported to the United States, and there seems to be no reason why an American house could not do a good export business in this line, if established here. A knowledge of the straw-braid business would be, of course, necessary to success, but some one with a knowledge of the trade conditions in the United States, and the necessities and wants thereof, should stand a better chance to succeed than European firms, which do all their business by writing.

AMERICAN TRADE THE LARGEST.

The main import of this market is undoubtedly kerosene oil, which is principally American and which has doubled in importation during the past year. The oil company has been able to make

arrangements for special tank installations, for a special harbor to be dredged by the colonial government, for special wharfage facilities, for special tank cars to be run on the railway, and for tank installations along the line of the road. The trade has been entirely built up by personal representatives of the company, which is the only way of securing business to any large amount in the Orient. The largest import of Tsingtau is therefore American, and the largest export, straw braid, is also consumed to a large extent in the United States.

The importation of foreign goods into the territory amounts to about \$6,000,000 per annum, four-fifths of which is imported in German vessels. The annual exports amount to approximately \$4,000,000. In taking into consideration the wants of the trade of Kiaochow the following figures must be recognized:

The port of Tsingtau is a thoroughly modern city, with special sections for Chinese and whites; has fine macadamized roads, modern sanitation, waterworks, etc., and is not in any way like the primitive cities of China proper. There are 30,000 Chinese residents, 2,000 foreigners, mostly Germans, and about 1,500 German troops, with 75 officers.

The Chinese may be said to be of a better class, commercially, than in other parts of China. They are receiving from the Germans a higher grade of wages for all kinds of work, almost 50 per cent more than in other places. This makes it possible for them to use more luxuries, and they wear better clothes, eat better food, use more tobacco, and purchase more foreign goods than are purchased by a similar population elsewhere in north China.

TRADE IN SHANTUNG.

Of the hinterland trade too much can not be said. The Shantung Railway, which runs 250 miles into the interior to Chinanfu, touches at several large Chinese cities and towns. Here an opportunity is given to supply large numbers of Chinese with cheap articles for the household, which are now being supplied principally by European firms. So important does Germany consider Chinanfu that the Government has recently made an appropriation of \$35,000 for the erection of a consular residence therein. German firms are already established in Chinanfu, and business is continually increasing between that city and Germany. With the advantage of the railway laying goods down directly at Chinanfu, the import of foreign wares is constantly increasing, and these will be called for in greater quantities as the wants of the country become better known and are more fully supplied.

There are no American firms in Chinanfu, although several British firms are established there and are doing good business. German, Japanese, and British consuls are residents there and are doing what is possible to foster trade with their respective countries. Much of the trade which appears in the customs statistics of Kiaochow or Tsingtau is made up of goods intended for the hinterland, and the steady growth of the import trade, which has increased from approximately \$1,500,000 in 1899, the first year the port was opened, to approximately \$18,000,000 last year, shows that the call for foreign goods is a growing one throughout the whole Province.

GOOD RESULTS FROM FOREIGN ENTERPRISE.

Many projects have been entered into by private individuals in Tsingtau. A silk filature company has been organized in Germany whose object is to improve the quality of the silk before endeavoring to make the business a commercial success. Modern silk filatures have been built at Tsangkou, a few miles from Tsingtau, where the employees have warm and cleanly houses with all modern conveniences, such as are found nowhere else in China, and are paid excellent wages. The company is composed of a coterie of wealthy Berlinese. A brick and tile factory does an excellent business. The railway, though only open over its entire length a little more than two years, is paying dividends of $3\frac{1}{2}$ to 4 per cent and is increasing its business every month.

The needs of the different districts and places are gone into by the administrative officials, and the entire matter is brought before the executive staff, headed by the governor, who consider the advisability of the action suggested. The railway administration hopes to continue the line farther into the interior of Shantung and ultimately connect with the Hankow-Peking road on the one side, with the British lines from Shanghai-Chingkiang-Nanking on the south, and with the city of Tientsin in the north. Some difficulties are being met with through the opposition of the Chinese officials. The result of such extensions and connections would undoubtedly be very far-reaching and tend toward a greatly increased foreign trade, which would be open to Americans as freely as to others.

COMMERCE AT AMOY.

TRADE REPORT FOR THE YEAR 1906.

Vice-Consul Rea Hanna writes that trade at the Chinese port of Amoy seems to have neither increased nor decreased to any great extent during 1906. He furnishes the following particulars:

The imports of American goods during 1906, according to the annual reports of the imperial maritime customs, aggregated \$831,851, the items of which were: Kerosene, 1,254,970 gallons, gold value \$139,766; flour, \$689,339; cotton cloth, 886 pieces drills, \$2,507, and 84 pieces jeans, \$244. The total imports of these same articles during 1906 amounted to \$2,440,327, classified as follows: Kerosene, 3,888,575 gallons, \$254,756; flour, \$689,339; cotton cloth and yarns, \$1,496,232. The imports of clarified ginseng amounted to \$124,770, of which part was American, although no record is kept of the country of origin.

The grand total of imports at this port during 1906 was \$13,786,518, of which foreign goods, including reexports, were represented by \$9,280,150, and native goods, including reexports, were represented by \$4,506,368. The reexports amounted to \$1,827,852 of foreign and \$200,959 of native goods.

During the same period the exports of native goods to foreign countries, including reexports, amounted to \$1,479,613; and to native ports, including reexports, \$567,254, making the total exports \$2,046,867.

TRADE CONDITIONS.

In the international settlement of Kulangsu there are about 250 foreigners, and in the native city of Amoy the population numbers

about 300,000, while the villages scattered over the rest of Amoy Island contain about 100,000 more. The entire Province of Fukien is barren and mountainous, and as a consequence the inhabitants are extremely poor. The trade in supplies for the transient foreign population is not enough to warrant any great effort to obtain it, and the natives, with few exceptions, are not able to buy more than the necessities of life.

Being the nearest port to Formosa, and owing to the former large immigration between here and that island, there are many Chinese living here who are Japanese subjects. The Japanese also form an appreciable part of the foreign population and have large concessions and holdings. Consequently their cheap but fairly good quality of manufactures hold a great share of the market. The Japanese are on the ground to do their own selling and, being Orientals, understand oriental needs.

European wares also have a good sale, as they are cheap and are made especially for the people and the climate. These last two considerations are vital and have not been considered by American manufacturers. Also the Japanese and European goods come better packed and consequently arrive in good condition. There are no direct imports of any but Japanese manufactures, all others coming through middlemen in Hongkong and Shanghai, who give from six months to a year's credit.

These conditions practically exclude all American imports except necessities, and to date the only American imports of value have been coarse cotton cloth or jeans, kerosene, and recently flour. The American case oil has made great progress against bulk oil from elsewhere, one American company increasing its share in the total imports from one-fifth in 1904 to nearly one-half in 1906. Their share of the trade will undoubtedly be greatly increased when the large tanks now in the process of erection are completed. The Japanese are placing an equally good cotton cloth on the market, which is cutting into the sales of the American product.

TRADE IN MANCHURIA.

OPPORTUNITIES FOR DIRECT BUSINESS.

In response to inquiries from American business houses, Consul-General Willard D. Straight, writes that American merchants and manufacturers who wish to engage in the trade of Manchuria and share in the profits which its development will afford must adopt more active and aggressive measures than those which have been employed heretofore in the China trade. The consul-general continues:

It is not perhaps clearly understood that while in the past Newchwang, like other treaty ports in China, has served as a depot for the importation of foreign goods and the export of native produce, all the most important inland cities have now been opened to trade. There is therefore in Manchuria an opportunity which exists nowhere else in China for the importer to deal directly with the merchants who place their goods in the hands of the individual consumer.

In Shanghai and the older ports sales are still made to native houses, who ship the goods inland to the distributors. In Manchuria,

however, if foreigners are content to trade in Newchwang alone they can not hope to compete with Japanese merchants, who are constantly in intimate touch with the markets in the interior, for the Chinese dealers at Mukden, Liaoyang, Tieling, Kwanchengtze, and Kirin, who have heretofore been forced to buy their stocks in Newchwang or the south are glad to avail themselves of the presence of the Japanese firms, who have established "go-downs" at all the important points, to purchase locally according to their needs.

CHINESE DISSATISFIED.

At the present time there is widespread dissatisfaction among the Chinese not only with Japanese business methods, but with the quality of Japanese goods. Their cottons, which are heavily sized, do not wash or dye well; their miscellaneous articles are shoddy, but they are cheap, and sales are consequently large because of the scarcity among the people of ready money, and the market for American piece goods has been poor. The Japanese, however, are determined to improve the quality of their goods, and in the meantime they are strengthening their Chinese connections, a task which is made the more easy by the lack of foreign competition.

INTERIOR MARKETS.

AMERICAN TRADE AND HOW IT MAY BE INCREASED.

Consul Mason Mitchell supplies the following information concerning the commerce of Chungking, a Chinese city of 300,000 population on the Yangtze River, about 1,000 miles from its mouth:

The year of 1905 was chronicled as the most disastrous since the port was opened to trade in 1893, and the year 1906, as far as the returns show, was fully as bad in trade as 1905. The high rate of exchange has much to do with this. One of the most conspicuous failures of 1906 was the suspension and closing of the new mint in course of construction, on which over 1,000,000 taels (\$750,000 gold) had been spent. Part of the machinery, purchased in Shanghai, of English and German type, was lost in the Yangtze River en route to Chungking. But a small part was installed in the partially completed buildings, and the balance remains outside unprotected from the elements.

Chungking has no direct trade with foreign countries, all exports being shipped to Shanghai; what their ultimate destination may be has not been learned. The products of this district that find their way to American markets are mostly bristles, feathers, wool, skins, hides, and yellow silk. Szechuan hides are well spoken of in foreign markets, but there is little demand for buffalo hides. For the past two years foreign piece goods and cotton yarn have proved disastrous to dealers here. The import of American kerosene oil is growing. It is estimated that 85,000 gallons were brought into Szechuan in 1906 against 81,000 in 1905.

The poppy harvest was considered a good one. The rice crop was the best of any in ten years. But little of this goes down the river to other provinces, being held here for future use.

It is utterly useless for American merchants to expect to introduce and sell goods by advertising or communicating with dealers here. Western China knows little or nothing of American products, nor do

they care to be enlightened by illustrated advertisements. Rarely can anyone read or write English, and seldom is there anyone in a firm that can. Until the American manufacturer or dealer will send goods here with an agent to exploit them there is little chance of our goods gaining a foothold in this western China market.

BRITISH INDIA.

REVIEW OF ANNUAL COMMERCE.

A GROWING TRADE—SHARE OF THE UNITED STATES.

In submitting a review of the import and export trade of India for the calendar year 1906, Consul-General W. H. Michael, of Calcutta, says:

The imports of merchandise into India during the calendar year 1906 amounted to \$360,000,585 and the exports therefrom \$556,857,490. This is an increase of \$29,260,675 in imports and \$43,377,985 in exports over 1905. The imports, exports, and reexports for the past two years are shown in the following comparative statement:

Provinces.	Imports.		Exports of Indian merchandise.		Reexports.	
	1905.	1906.	1905.	1906.	1905.	1906.
Bengal	\$134,150,515	\$141,470,130	\$221,029,140	\$256,799,500	\$660,470	\$647,175
East Bengal and Assam		1,027,030		10,674,480		85
Bombay	116,754,935	126,048,055	144,641,035	141,428,865	9,034,085	8,951,565
Sind	27,852,980	31,449,085	44,113,065	42,921,765	1,247,205	1,478,320
Madras	24,963,850	28,896,990	50,278,640	57,201,630	399,295	694,060
Burma	27,518,130	31,109,295	53,417,625	47,831,250	120,080	195,130
Total	330,789,910	360,000,585	513,479,505	556,857,490	11,461,135	11,966,335
Government stores	30,669,250	30,185,500	474,845	339,215		
Bullion and specie	101,504,805	154,769,650	48,721,550	30,138,755		
Grand total	462,913,965	544,955,735	562,675,900	587,335,460	11,461,135	11,966,335

The imports in 1906, by articles, are given in the following table:

Articles.	Value.	Articles.	Value.
Animals, living	\$1,495,380	Manufactured articles:	
Articles of food and drink:		Cotton piece goods	\$100,806,868
Ale, beer, and porter	2,077,740	Yarn	11,226,725
Spirits	3,352,580	Other cottons	6,766,095
Wine	868,010	Silk	5,226,235
Provisions	8,011,405	Woolens	6,670,560
Salt	2,438,580	Apparel	6,923,605
Spices	4,661,855	Carriages and carts	2,759,240
Sugar	32,802,408	Glass and glassware	3,925,040
All other	2,762,406	Instruments, apparatus, etc	3,450,020
Metals, and manufactures of:		All other	28,943,960
Copper	4,081,340	Unmanufactured articles:	
Hardware and cutlery	8,649,455	Coal and coke	1,412,945
Iron and steel	24,494,910	Precious stones, unset, etc	3,483,000
Machinery, etc	18,710,895	Silk	2,072,335
Railway and rolling stock	11,176,340	Timber	10,399,510
All other	3,502,010	Other articles	5,194,675
Chemicals, drugs, etc.:		All other articles	13,076,333
Chemicals and drugs	4,655,325		
Tobacco and opium	2,166,980	Total	380,000,585
Dyes and tanning material	3,245,525		
Oil:			
Mineral	7,358,115		
All other	1,112,240		

The leading articles of import from the United States were: Hardware, cutlery, and plated ware, valued at \$356,585; machinery

and mill work, \$243,815; kerosene oil, \$3,890,280; carriages and carts, \$52,040, and sewing machines, \$123,540, besides many other articles, such as boots and shoes, automobiles, flour, typewriters, etc. The principal articles of export to the United States were: Saltpeter, worth \$381,915; indigo, \$97,300; cocoanut oil, \$143,130; hides, \$3,519,850; caoutchouc, \$88,825; skins, \$12,889,560; wool, \$183,660; gunny bags, \$719,330; gunny cloth, \$17,328,930; carpets and rugs, \$130,523; shellac, \$5,045,610; and button lac, \$432,695.

The six great ports of India which received merchandise and distributed it for consumption and reexport in 1906 were: Calcutta, \$141,470,130 worth; Bombay, \$126,048,055; Sind (Karachi), \$31,449,085; Burma (Rangoon), \$31,109,295; Madras, \$28,896,990; and Chittagong, \$1,027,030. This trade was carried in 4,071 vessels of 6,058,195 tons, of which 2,627 were British vessels of 3,366,223 tons. The United States is credited with two sailing ships of 4,436 tonnage and 34 steamships of 102,864 tonnage as having entered the several ports of India, and 80 steamships of 251,673 tons as having cleared for the United States during 1906, but not one of them carried the American flag.

MADRAS BUYS LITTLE BUT SELLS MUCH TO AMERICA.

The total imports into Madras, the fourth largest port of India, for the fiscal year 1905-6 amounted to \$25,915,791. Of this amount the United States furnished articles valued at \$310,239, of which \$281,954 was for kerosene, the small balance being for machinery and merchandise.

There is not a single American engaged in trade in Madras. This accounts partly for the very small importation of American goods. There are 98 Americans living in and near Madras, all of whom are missionaries. The city contains nearly 600,000 population, and has a coast frontage of 9 miles. The total exports from Madras during the fiscal year 1905-6 were valued at \$51,983,790. The exports to the United States during this period amounted to \$4,226,763, and consisted of the following principal articles:

Articles.	Value.	Articles.	Value.
Coir, and manufacturers of, except ropes.....	\$71,047	Manganese ore	\$32,733
Drugs and medicines.....	27,561	Metals.....	32,778
Ginger.....	44,830	Oil:	
Hides, dressed.....	234,983	Essential.....	11,440
Indigo.....	10,580	Cocoanut.....	175,594
Skins.....	3,174,123	Pepper.....	319,760
		Sandalwood.....	35,935

The number of vessels that entered the port of Madras in 1905-6 with foreign cargoes was 1,956, having a tonnage of 1,414,768, and the number of vessels cleared during the same period was 2,089, with a tonnage of 1,298,124. Of the vessels that entered 1,845 were from the United Kingdom and British possessions; 2 from the United States, 1 of which floated the British flag; 38 from Germany; 16 from Turkey in Asia, and the remaining 55 were distributed among other countries.

TRADE OF KARACHI.

The total value of Karachi's over-sea trade for 1906 amounted to \$103,644,751, which is an increase of \$5,000,000 over the trade of the

previous years and \$20,000,000 above the average trade of the five previous years. This large increase indicates a growth in the demands of the country and its growing purchasing power, for the reason that it was due to imports. The total wheat exports in 1906 amounted to 728,543 tons, as against 946,294 tons in 1905. Cotton exports fell off in value amounting to \$2,543,729. This was largely due to the shortage of the crop in the Punjab, caused by the ravages of the boll worm, but there was a large increase in the exports of rape seed and wool. The increase of the former amounted to \$1,866,665, and a great deal more could have been exported but for the demand from Bengal and the shipments through Calcutta to the United Provinces. The exports of wool from Karachi were the largest ever made in one year, amounting to \$4,324,302. The exports of hides and skins, mostly to the United States, amounted in value to \$3,782,082.

The imports into Karachi amounted to \$49,221,930, the heaviest on record. The decrease of exports for 1906 amounted to \$1,603,990. While there was a falling off in cotton and wheat, there was an increase in the exports of other commodities that more than offset the loss on those two products.

Karachi is destined to become one of the largest and most important shipping points in all India, especially in wheat, cotton, wool, and rape seed. An enterprising representative of machinery used in handling wheat for shipment by water could lay the foundation for a big trade in that line. The conditions call for prompt action.

PONIES ARE WANTED.

A DEMAND FOR SMALL ANIMALS IN BURMA.

Consul-General Michael also writes that if Oregon and Texas can supply stout-limbed and well-ribbed ponies in shipload lots, as those localities once were able to do, they could dispose of several shiploads at good prices in Burma, where the native pony is becoming very scarce. He particularizes:

The ponies or small horses should be sufficiently active to be trained for the polo field and suited to work in single harness to a low-hung two-wheeled vehicle, in general use throughout India. The small horses or ponies are now principally supplied from Australia. They are known by the name of "Waler," and were produced by crossing English thoroughbreds with the small, stout-legged breed of horses found in Australia. Some of the "Waler ponies" are very handsome, of good temper, and possess splendid endurance. They make good polo ponies and now and then smart racers for short distances. Some of this class of ponies are being raised in India, the supply in the market being 17 home bred to 20 imported from Australia. But the supply from both sources is not equal to the demand. The average price of the imported ponies is \$200 gold and \$135 for the Indian-bred ones. Well-trained polo ponies, however, sell for much more—say from \$300 to \$500 each.

THE BURMA, SHAN, AND CHINESE.

The best Burma bred ponies are sold for polo purposes to officers of the army in Burma and outside of Burma and to young men in the civil service and to business men and for riding and driving

purposes to rich Chinese. The second-grade pony is sold for hack use, for the trap, and for mounted infantry. The Government buys a great many of these ponies for the mounted infantry. They are well adapted for climbing hills and mountains.

There is also a third grade of pony, which is used for baggage or hackney carriage purposes. Ponies used to be employed as transport animals, but the small mule brought from China has taken their place. This grade of pony is a poor specimen, being ill shapen and poorly kept.

The best pony bred in Burma is known as "the Shan," which derives its designation from the Shan Hills, where it is bred. It is a strong, hardy beast, fairly well shaped, good bone, and full of spirit, and makes a good hack pony and a mount for the military police and mounted infantry. Now and then one may be found that possesses the qualities required in a polo pony, but the Shan never takes high place in this class. For all purposes, however, the Shan pony is the best produced in Burma, but the supply is not equal to the demand even for these.

Ponies from China in considerable numbers find their way overland into Burma, but the long and tedious journey reduces them in flesh and ill fits them for market. They fetch low prices and are bought up by dealers who put them in better condition, break them to the saddle and harness, and then sell at really good prices.

THE HORSE WANTED.

The Waler pony or horse measures from 13½ to 14½ hands, has fine but strong bone, a good neck, well "ribbed up," strong quarters, generally black cup-shaped hoofs, medium head, medium ear, and fine eye. The cross between the native mares in Texas and Oregon—perhaps other States—and the finely pedigreed stallions brought from the States farther east is about the class of horse in demand in Burma and India. If it has been demonstrated that the best grade of humped cattle imported into the United States from India is destined to improve our beef cattle, and that the danger in importing them is practically nil, and the Agricultural Department is willing, a good trade could be brought about by exporting our small horses to Burma and India in shipload lots and taking back Brahma or hump cattle for breeding purposes in lots of the same size.

ASIATIC TURKEY.

MODERN SYRIA.

EFFECT OF RAILROAD EXTENSIONS AND EDUCATIONAL AMBITIONS.

In a report from Beirut Consul-General G. B. Ravndal says there is little doubt that western Asia is possessed of great natural riches and that the time is rapidly drawing near when these will be thoroughly exploited. Some of these modernizing influences are portrayed in the following report:

Among the numerous privileges granted the Germans by the Ottoman Government none exceeds in general interest the concession of November, 1899, for the construction, under Ottoman mileage guar-

anty and amplified by mining, colonization, navigation, generation of electricity, and other subsidiary rights, of a railway through Asia Minor and Mesopotamia to the Persian Gulf. At present the work of construction is at a halt in the Taurus Mountains, as no money is available for the mileage guaranty. On both sides of the railroad line in Mesopotamia are said to be the bituminous and petroleum yielding fields. It is calculated that Anatolia, Syria, Mesopotamia, and the Irak can produce more grain than Russia. To this are added the vast possibilities of the cotton supply in western Asia. The Germans, in looking forward to the completion of the Bagdad Railway, are not unmindful of their commercial opportunities in Persia and in India. The Bagdad concession admits of the Germans utilizing all waters along the route for electric purposes, and such power will eventually be used for lighting the towns. The concession grants rights to navigate the Tigris and Euphrates and the Shat-el-Arab, and rights have been acquired for the building of quays at Bagdad and Basra and on the Persian Gulf.

THE LINE TO MECCA.

The Mecca line is being well built under the supervision of a German civil engineer by Ottoman soldiers, the cost defrayed by voluntary contributions from Moslems in all parts of the world, and by special taxes. It is known as the Hamidieh-Hedjaz Railroad, and consists of the main line from Damascus toward Mecca, which is completed beyond Tabouk some 560 miles, costing about \$7,500 per mile, and the Haifa-Derah line of 103 miles, costing about \$12,000 per mile, owing to the more irregular surface of the ground. The latter branch is finished and in full operation. On the main line and that of Haifa, both of which are of the narrow-gauge type, there are so far 2,388 bridges of stone and 6 of metal. Eight tunnels have been bored, and at the principal stations large storehouses and repair shops have been constructed and water supplies established. The rolling stock employed is of Belgian and German origin, while a large portion of the rails were brought from America. It is expected the main line will reach Medina in a year or more and Mecca early in 1910. At present trains run regularly as far as Tabouk. In his railroad plans the Sultan has been most ably seconded by his secretary, himself a native of Damascus, and therefore fully aware of the terrible sufferings of the pilgrims on the caravan route to Mecca.

During the past year the French railroad company, which for a number of years has operated the Beirut-Damascus line, completed the extension of its system to Aleppo. This was an event in the annals of Ottoman Asia of no mean importance. In effect, it renders the Orontes valley and portions of Asia Minor and Mesopotamia tributary to Beirut. Mail to and from Bagdad is now carried via Beirut and Aleppo.

ELECTRICAL AND STEAM RAILWAYS.

Electricity has been admitted into the Turkish Empire. I recently visited Damascus and saw overhead trolley cables in her streets and, quite a few miles up the Barada River, the station erected for the generation of electric motive power.

Concessions for electric light and street railway undertakings have been granted corporations in Damascus, Beirut, Aleppo, Smyrna, and

Salonica. So far nothing has been heard of the authorization of telephone companies.

Until recently the country east of the Jordan was forbidden to foreign travelers. Now a constantly swelling stream of tourists land at Beirut and proceed via Damascus to Haifa or Jerusalem, taking advantage of the facilities offered by the Mecca railroad from Damascus southward. Western civilization is constantly making fresh inroads and extending its sway inland. We are here at the ancient cross-roads of three continents, which will acquire new importance when Africa is opened by the Cape to Cairo Railway, and when the British (Alexandria-Calcutta), German (Constantinople-Persian Gulf), Russian (Moscow-Teheran, Moscow-Herat, Moscow-India) railroads in Western Asia are completed. At the contiguous ports steamers are arriving and departing in growing numbers. Quite recently the Hamburg-American Steamship Company inaugurated a direct regular service to the Persian Gulf, running both freight and passenger steamers.

EVIDENCES OF ADVANCEMENT.

Syria of to-day can not be compared with Syria of twenty-five years ago. Education is working wonders, raising the standard of wages and of living, multiplying and diversifying the requirements of the people, developing the natural resources of the country, and increasing the purchasing capacity of the individual. Illiteracy is on the wane, independent thought in the ascendancy. We have printing presses, railroads, bridges, carriage roads, postal and telegraph routes. Trade is growing in volume and variety.

Emigration to foreign lands, especially America, has reacted beneficially on these regions. Large remittances of money are made each year by emigrants doing business in distant lands. Many of these return in person for a shorter or longer sojourn, and quite a number settle down for good in their original homes. They bring with them modern ideas and modern ways and the means of introducing labor-saving machinery, and have become a positive asset to western Asia, and especially to Syria and Armenia.

SELLING AMERICAN GOODS.

ADVICE TO EXPORTERS FOR INCREASING THEM.

Consul E. E. Young, of Harput, is in receipt of a letter from the Rev. George P. Knapp, who is in charge of the American orphanage in that city, which contains some valuable information regarding the best method of increasing sales of American goods in that part of Turkey. The letter follows:

Those wishing to introduce their goods into this country should be endowed with patience. They must make up their minds for the first four or five years to have little or no return and even to incur some loss. They should either unite in engaging a paid agent to push their goods or they should be willing to place sample consignments of goods to be sold on commission. People here must see the goods for themselves and be convinced of their usefulness and intrinsic value. For ten or eleven years we have been bringing up hundreds of Armenian boys and girls who were left helpless

orphans by the upheaval of the last decade. A thousand children have come under our care and gone out from us after being in our schools and receiving industrial training. Some 400 orphans are still with us. Among these are a goodly number of boys who have reached the high school and college grades. Some of these are getting trained in office work in connection with our stores and industries. We have a store here and one at the seat of government, 3 miles away.

TRAINING PROSPECTIVE BUSINESS MEN.

We have facilities for knowing trustworthy merchants in all the towns of this consular district, the Harput and Diarbekr provinces. By degrees we hope the trained boys will be associated with some of these men. We are anxious that these boys, who have been brought up largely by American benevolent funds, should find employment in this country, where they may at the same time be serving American commercial interests, rather than have them drift away to America, as so many of the people are doing. In charge of our stores and industrial department for more than five years is an energetic Armenian, who, by some ten years previously spent in the United States, has become quite familiar with American business ways. Under his management the boys could be trained to meet the growing demands of the American trade.

We have been training some of the boys in farming and gardening, and hope before long to have a model farm, where American methods and implements will be used. We expect to have a graduate of the Massachusetts Agricultural College at Amherst in charge of this enterprise. A demonstration of the value of American agricultural implements on such a farm will do more toward advertising than any amount of printing and talking.

Another of our expectations is that several of the boys will drive one or two American wagons regularly between here and the Black Sea coast, a distance of nearly 500 miles. This will be the most effective advertisement of American wheels, axles, other metal parts, and harness. The need of a regular express service between here and the coast is much felt, and will be sure to succeed as American trade grows.

This province is undoubtedly in closer touch with America than any other part of this Empire, which accounts for a higher appreciation for American goods, yet the fact remains that the common day laborer seldom earns more than 20 cents a day. The first consideration must, therefore, be cheapness, in the sense of simplicity and durability. American goods must compete with cheap European goods. There is consequently a market here for remnants, shop-worn goods, and articles that have gone out of style and sell at about half price.

SALABLE ARTICLES.

As to articles of American manufacture not now found in the local markets which ought to find a sale here, I would mention the following: Men's furnishings, suspenders, celluloid collars; good, thick quality of white cotton sheetings, weighing about 14 pounds per piece of 40 yards and costing here about \$3.25 to \$3.50 per piece; white and red cotton yarn, sizes 16 and 20, such as is now imported from Manchester; remnants of ginghams, calicoes, ribbons, etc.; stationery; useful and low-priced school articles; cheap but good fountain pens;

shoes selling from \$2 to \$3 and leather sole, common and glazed varieties; felt shoes and slippers; harness leather, harness, cheap and durable, especially collars; second-hand army saddles; wheels, axles, and other metal parts of wagons; wood-burning heating stoves; pins, needles, cutlery, knives, razors, scissors, hammers, axes, saws, hardware, locks, latches, hinges, padlocks, and small coffee mills, to grind as fine as flour; light plows, binders, drills, and the lighter forms of agricultural implements.

As to the lines of American goods now sold in the local markets, the sales of such articles as rubber shoes, hot-water bags, lamps, and lanterns, cheap but durable; clocks and watches, simple and durable hand pumps, meat choppers, steel and galvanized iron roofing, and "Cabot" A gray sheetings, can be substantially increased with a little effort. The exportation of these articles can be increased by having them better known at more points. When one thinks of the immense expense in America incurred for traveling agents, etc., one is surprised that American exporters have as yet made no determined or systematic effort to place their goods in the markets of the interior provinces of this country. By reducing the time and expense of transportation there is no reason why goods should not be brought from New York to Samsoun in a month, whereas now it often takes double that time or more. By encouraging imports in return, and thus reducing the cost of transportation and the rates of exchange, the desire to patronize American goods will be stimulated. There is already a preference for American goods. Let nothing be done to shake confidence in them or in American methods of dealing, and success is assured.

TREBIZOND'S TRADE.

AN IMPORTANT MARKET—AMERICAN SALES OPPORTUNITIES.

Vice-Consul Isaiah Montesanto, in his annual report reviewing the trade of Trebizond, Turkey, says:

Trebizond is a district where there are no factories to speak of; at the same time all kinds of manufactured articles are imported and used to a greater or less extent. The people are civilized, and their way of living comes up to the standard of moderate life in America. Besides this province provides for several provinces of the interior, which makes it quite an important market. Trebizond is the port for the provinces of Ezeroum, Bitlis, Van, up to the Persian frontier; and Samsoun is the port for the provinces of Sivas, Harput, Diarbekir, Mossoul, up to Bagdad.

Though there are many American goods to be found in this market, they are few compared with the total amount of imported goods, but if trade were well worked up there would be a chance for the United States to have a good share in it. The success of a certain American sewing machine company is a very good example of what can be done in this market. They bring in, through the port of Trebizond only, \$20,000 worth yearly. Less expensive goods of every-day use might have even a better success. The principal reason that American goods have not had their proper place in this market has been the lack of direct communication with America. The heavy charges of intermediary markets and ports make the goods too expensive to compete favorably with the products of other countries. This difficulty is partly removed by the recent establish-

ment of the direct Moss and Ellerman lines. Though not very regular, still they render good service.

COMMERCIAL REPRESENTATION—CREDITS AND PACKING.

Traveling agents might represent several factories with different kinds of articles, and travel with samples, catalogues, prices, and terms, to tickle the commercial appetite of the merchants. This market is often visited by traveling commercial agents, all of whom seem to leave the place well satisfied, and the orders they obtain for goods very often surpass their expectations. The commercial houses here, with a fair capital, have established business with Europe. They know the kind, the prices, and the expenses to the minimum of the goods they order, and it takes more than mere words, or catalogues in a language that they do not understand, to make them change their custom. Therefore all the good houses remain in their conservatism for lack of anything better, and only individuals with no capital, or with hardly any to merit the name, try to order goods from America, expecting an enormous percentage as profit, to the detriment of the prestige of American goods.

If American exporters do not think of giving credit to a new market (and I would advise not to until they are in position to know by experience to whom and how much they should give), at least they should adopt the system of cash on delivery, viz, of sending their drafts to the Imperial Ottoman Bank to be cashed before the goods are withdrawn from the custom-house.

Catalogues should be sent in French, if possible, with net export prices. High prices, with discounts of 40 and 50 per cent, are not favorably looked upon in this market. Exporters should be very careful about the way of packing goods, very particular as to their identity with the samples, and use great expedition in sending them. The first, in order to have goods come in good condition; the second, to avoid any controversy with the merchants, and the third, to minimize the difference in the distance between America and Europe.

THE IMPORT TRADE.

The following articles can be imported to advantage from America: Cotton goods, crockery and glassware, dyes, paints and varnishes, flour, hardware, cutlery, tools, jewelry and silver-plated ware, leather, nails, etc. The imports into Trebizond during 1906 amounted to \$8,800,000. The principal articles were as follows:

Articles.	Value.	Articles.	Value.
Breadstuffs	\$620,000	Sacks, etc.	\$50,000
Cotton goods.....	2,163,000	Silk, etc.	240,000
Crockery and glassware	152,000	Soap.....	72,000
Fruit.....	63,000	Spirits, wine, and beer	55,000
Haberdashery	159,000	Stationery and paper.....	65,000
Iron and steel manufactures:		Sugar.....	527,000
Hardware	176,000	Tea.....	536,000
Iron ware, etc.....	175,000	Timber.....	58,000
Sewing machines.....	25,000	Tobacco.....	257,000
Jewelry.....	54,000	Woolen goods.....	1,653,000
Leather.....	185,000	Yarn.....	181,000
Matches.....	105,000	All other.....	1,156,000
Petroleum.....	78,000		
Rice.....	75,000	Total	8,880,000

The exports from Trebizond in 1906 were valued at \$3,360,000, and consisted in part of the following articles: Animals, sheep, and

goats, \$597,000; tobacco, \$685,000; nuts, \$750,000; beans, \$250,000; hides and skins, \$350,000; eggs, \$150,000; walnut wood, \$50,000; and fruits and vegetables, \$40,000. The value of goods in transit, Persian trade, was \$1,250,000.

POPULARITY OF PHOTOGRAPHY.

OPENING FOR AMERICAN SUPPLIES IN SMYRNA.

Consul Ernest L. Harris writes from Smyrna that amateur photography is rapidly becoming popular in Asia Minor, and calls attention to the market opening for the sale of supplies in the following letter:

The increasing number of tourists visiting these parts every year, all armed with cameras, has sown the seed, so that now photography is growing to be the most popular hobby of the educated classes in Turkey; and professional photographers are more numerous here than in cities of a corresponding size in the United States. The consequent demand for photographic supplies is therefore steadily growing. France and England share the trade in plates and sensitized papers, while a well-known American firm nearly monopolizes the film consumption. Plates of medium sensibility usually give the best results, owing to the light here being actinic and very strong. In the line of cameras the same American firm supplies a good share of the trade, although Germany, with its cheaper imitations of the American article, is rapidly gaining ground. Germany also provides a considerable number of low-priced cameras of the plate-magazine type.

Accessories, such as printing frames, trays, dark lanterns, etc., are generally of German origin. Of course there is still a small demand for that class of accessories called for by experienced amateurs, such as print cutters, burnishers, and the like. American photographic supplies of the cheaper grades would find a ready sale, provided they are placed in the hands of an energetic dealer and generously advertised in the local French, Greek, and Turkish papers. An effort in this direction would undoubtedly pay for itself in a short time.

EUROPE.

UNITED KINGDOM.

MARKETS OF MANCHESTER.

MOST REMUNERATIVE CENTER IN EUROPE FOR AMERICAN ENTERPRISE.

Consul William Harrison Bradley furnishes the following information concerning Manchester as a center for the enlargement of American trade:

An American, going home after working five years over here and establishing a large business in such a way that it will take care of itself with an annual visit, said to me: "Manchester is, in my estimation, the most remunerative center in Europe for investment of American enterprise." Such testimony comes to me frequently. The reason for this is the fact, given recently in a statistical article, that Manchester is situated in the most densely populated area in the United Kingdom. The writer says: "It is the source of supply, as a port, for 171 towns. The district in which these towns are situated is nearer the ocean port of Manchester than any other, is 10,000 square miles in extent, and has a population of about 10,000,000 people."

The area about the Manchester docks, to and from which goods are carted, has a population of 2,000,000 people, supplies for which are drawn from this center more easily than from elsewhere. But comparatively few years ago Manchester was only one, though a large one, of the northern towns. Modern methods of traffic and the ship canal have changed the whole situation in a way hardly to be realized. Street cars, paving, and lighting run out in every direction for miles through solid blocks of buildings, passing through town after town, each one large in itself, but all now selling and buying in Manchester.

A TYPICAL SUBURBAN MARKET.

Take, for example, Oldham, with its 215,616 inhabitants, 7 miles from the Manchester town hall, though without visible division from the city. The number of dwelling houses there is 47,317, and there are in course of erection 415 more. Oldham is noted as the greatest cotton spinning place in the world. It has nearly 200 mills, containing 15,000,000 spindles. These factories give employment to 37,500 persons whose annual wages amount to \$12,166,250. Oldham is also a great town for the production of textile machinery, one such shop employing about 3,000 machinists and another nearly 2,000. Numerous engineering and millwright concerns are situated there. There are other minor industries, such as the making of sewing machines, cycles, yarn cop tubes, and yarn skips, as well as card machinery clothing. A moderate number of weaving looms are working in the district, manufacturing special kinds of goods, largely for the home trade. The inhabitants are looked upon as a hard-working population and are generally thrifty. A feature is that while a fair proportion of the men are engaged in the iron trade, there is plenty of employment for women and girls in the cotton trade.

There are two cooperative provision societies in Oldham. The Equitable has twenty branch shops and a membership of 12,696,

and its receipts for goods in 1905 were \$1,394,520, and the share capital of the organization is \$806,048. The Industrial, whose cash receipts in 1905 amounted to \$2,483,423 and the share capital to \$783,283, has a membership of 15,312 and thirty branch shops. The reserve fund of the Industrial is \$101,043, and \$87,597 was invested in cotton mills during the year; it has a housebuilding department, and the money advanced to the members during the year amounted to \$103,549. Almost anything of practical utility in domestic use or in manufacture that sells in an American city should find good sale here.

DIRECT TRADE WITH THE UNITED STATES.

Regular services of steamers to Manchester are maintained throughout the year from Boston, New York, and Philadelphia, and during the cotton season frequent sailings are given from the principal cotton ports, including Savannah, Brunswick, Mobile, Pensacola, New Orleans, and Galveston. Full cargoes of timber also arrive at Manchester throughout the year from Gulf of Mexico ports.

The service from Boston to Manchester is operated by the steamers of the Leyland Line. These steamers, during the past year, have secured on the whole excellent cargoes, considerably in excess of the quantity of traffic carried during previous years, showing that Manchester is rapidly gaining in favor among the shippers in the United States and the importers on this side, and that the benefits of making Manchester a center of distribution and obtaining the advantages to be derived by reduced cost of delivering from ship to the consumer are becoming more widely known.

The steamers are well equipped for carrying cattle and brought over large shipments in 1906. Billets, grain, provisions, apples, cotton, machinery, wood ware, glucose, starch, etc., were shipped for Manchester in very large quantities.

Lamport & Holt, of Liverpool, who own a very fine fleet of steamers, have transferred several of their largest boats to operate regularly between New York and Manchester, and a fortnightly service is maintained between the two ports. The majority of these steamers carry live cattle, and they are exceptionally well equipped for the conveyance of all descriptions of American produce. The New York service was the first regular steam connection between a United States port and Manchester, and from practically a small beginning the trade has developed very considerably.

The Manchester Liners (Limited), a Manchester-formed company, have hitherto had two steamers in the Philadelphia-Manchester service, but owing to the improvement in trade they decided to put another steamer in the service, giving regular fortnightly sailings from each side. In addition to live cattle and the commodities previously referred to, they carry very large quantities of oil in barrels.

Manchester comes next to London in respect to the annual importation of oil. Large quantities of lubricating oil in barrels are imported from Philadelphia and New York, stored at the Manchester docks, and distributed from thence throughout the busy manufacturing towns of the Midlands and the north of England, where are works of every possible description. Shipments of oil in

bulk are also periodically made by tank steamers from New York, Philadelphia, and Port Arthur, Tex., to Manchester, the total tank-age capacity at the docks being 23,000,000 gallons.

CONNECTION WITH SOUTHERN PORTS.

The steamers running from Brunswick, Savannah, Pensacola, Mobile, New Orleans, and Galveston to Manchester convey large quantities of cotton, the average saving in distribution to the cotton mills in Lancashire from ship at Manchester being \$1 per ton, besides which considerable advantage is derived in the saving of handling, owing to the most up-to-date equipment at the Manchester docks and the fact that there is direct railway connection between the docks and all the principal railroads in the country. At Pensacola part cargoes of phosphate are loaded with the cotton, the phosphate being discharged direct from steamer to chemical works on the banks of the ship canal at Runcorn. In regard to live-stock shipments to Manchester from northern ports, it may be mentioned that to cope with the increased trade to Manchester, the Manchester corporation which owns the lairages at the Manchester docks has extended the capacity, giving accommodation for 1,850 cattle and 1,500 sheep. An interesting item in connection with the distribution of meat from Manchester during the past year has been the regular supplies of dead meat sent from the Manchester lairages to Germany by way of rail across the country to Hull and thence by steamer to Hamburg. The market created in Germany has been quite an important one, so far as Manchester is concerned.

The import of grain at Manchester has considerably increased during the past year, owing to the fact that there is a much greater demand now than formerly in the district. Three important flour mills have been completed during the past year immediately adjoining the Manchester docks, thus enabling grain to be delivered through the elevator to the mills at a very small cost.

REFRIGERATED TRANSIT CHAMBER.

In connection with the trade from Australia and New Zealand to Manchester the canal company have insulated a portion of the transit shed at which the Federal Houlder-Shire Line of steamers discharge, thus permitting cargoes of frozen meat, mutton, rabbits, and other perishable produce to be delivered direct from steamer into the cold chamber for the purpose of sorting prior to distribution to the consumers. This is the only provision of the kind at any port in the United Kingdom, and shows that the authorities at the port of Manchester are most enterprising in providing every possible facility for the efficient handling, distribution, and storage of incoming traffic.

That Americans are beginning to appreciate the possibilities of this market, hitherto almost unnoticed, to which I have constantly called attention, is evidenced by the number of firms who have established themselves during the past few years in Manchester and vicinity for supplying not only this district, but many other points in Europe as well.

EXPORTS OF COTTON GOODS AND MACHINERY TO AMERICA.

The exports of cotton manufactures from Manchester to the United States in 1906 were as follows: Piece goods, \$4,942,078, an increase

over 1905 of \$1,647,632; cotton worsteds and worsted stuffs, \$101,167, a decrease from 1905 of \$169,219; cotton, velvets, fustians, etc., \$603,609, a decrease from 1905 of \$438,244; yarn and thread, \$2,167,115, an increase over 1905 of \$692,691; total exports, \$7,813,969, an increase over 1905 of \$1,732,860.

Of the \$32,656,997 exports of textile machinery in 1906, the amount going to the United States was represented by \$2,905,218. British India was the heaviest purchaser, taking \$8,343,181 worth; Germany, \$4,188,460; France, \$3,436,513; Japan, \$1,258,088, and Russia, \$1,218,124 worth. Of the \$27,283,078 shipments of such machinery the year previous, America's purchases were \$2,001,650.

POTTERY INDUSTRY.

TARIFF COMMISSION'S REPORT ON THE PRESENT CONDITIONS.

Consul-General Robert J. Wynne, of London, has transmitted a printed report issued by the tariff commission as a result of investigation into the present unsatisfactory condition of the British pottery industry, and the measures proposed for its protection from foreign competition, of which the following is an abstract:

The output of British pottery is estimated at \$26,766,000, of which \$10,950,000 worth is exported, and the balance, \$15,816,000, being consumed in the United Kingdom. While the world's use of pottery has undergone great extension in recent years, the British industry has not only failed to expand accordingly, but has failed to keep pace with the home demand. While the industry has undergone no practical change, the exports of British pottery clays have more than quadrupled in thirty years.

While the exports of British pottery have remained practically stationary for the last twenty-five years, the German exports have risen from \$14,595,000 to \$24,333,000 during the last eight years. French and Austrian exports have risen during the last ten years from \$5,000,000 to \$7,500,000 and from \$3,260,000 to \$6,140,000, respectively.

The United States still continues to be the chief market for British pottery, although the decline in the exports thereto since the imposition of the McKinley and Dingley tariffs has amounted to 40 per cent, while German exports to the United States have increased 160 per cent in the last six years and now exceed \$7,300,000, against British exports of about \$2,500,000. The British industry expects that under their tariff protection American manufacturers will soon be able to supply their entire home demand. British colonial markets now rank next in importance to the United States. Canada and South Africa, wherein British goods have preference tariffs, show large increases in the consumption of British pottery, while Australia, wherein there is no preference, shows a heavy decline. British exports to South America show an upward tendency.

THE HOME MARKET—JAPANESE COMPETITION.

The most disturbing influence in the British pottery industry has been the steady increase in the imports of foreign pottery into the United Kingdom in the last twenty-five years. Germany exports to the United Kingdom five times as much pottery as it did thirty years ago, while in ten years the imports from Austria have increased twelvefold, and those from France 56 per cent in ten years. The feature of foreign competition of which the greatest complaint is made is the sale of imported pottery regardless of cost price. German manufacturers, having their own market secure, dispose of their pottery in the United Kingdom at less money than the British manufacturer pays for labor alone on similar articles, and this foreign "dumping" is often coupled with the piracy of British designs, the effect on British trade being often disastrous.

The result of all the foregoing is that British potters have suffered to the extent of 25 per cent in their wages for some years past because of short time, and that despite the greatly increased use of pottery ware there are fewer people employed to-day in some districts than there were twenty-five years ago. It is generally agreed that foreign competition, especially "dumping," keeps the

output of some British factories down to one-half their capacity. Foreign tariffs are indicated as a prime cause of the establishment of British pottery firms in the United States and Germany and the emigration of British skilled labor to those countries.

Great stress is laid in the evidence as to the consequences of increasing Japanese competition, in view of the abnormally low wage basis prevailing in that country. In some classes Japanese potters work for 8 cents a day. Japan now sends half her pottery exports to the United States, and there have been substantial increases in its exports to Canada and Australasia.

Those engaged in the industry advocate the need of change in the British fiscal system. One manufacturer testified as follows: "If I could produce 30 per cent more than now from an average of 51 to 90 ovens, I could sell at 11½ per cent cheaper than at present and be just as well off." A system of appraisal similar to that in the United States, based on the value of the goods as sold in the country of production, is recommended.

GERMAN EMPIRE.

CHAMBERS OF COMMERCE.

POWERFUL IN PROMOTING TRADE—RELATIONS TO THE GOVERNMENT— SCOPE OF OPERATIONS.

As constituted and administered in Germany chambers of commerce are essential and potential agencies of the Government as well as of the commerce and industry of the Empire, and have contributed largely to the success of German trade in foreign markets. Consul-General Jay White, before his transfer from Hanover to Bogota, Colombia, prepared an interesting report on the organization of these chambers which are found in all the principal cities, their methods of operation, and scope of authority and influence. This report follows:

Chambers of commerce in Germany are legally organized corporations which forward and protect industrial and other interests in the various districts, and their united efforts are intelligently made with those of the Government for the advancement of the nation's welfare and commerce. Each association is composed of a limited number of members; sometimes this number does not exceed 25. These members, chosen from among the oldest, most experienced, and most respected of the men of affairs, represent the various branches of industry and commerce existing in the district where the office of their board is located. Membership is without emolument, with the exception of the secretary, who bears the title of "Syndic," who is a salaried officer of the Government and must be a jurist. In Hanover he has two scientific assistants. The other members are given the courtesies due Government officials. The chambers hold regular meetings, besides which there are numerous special sessions.

CONTROLLED BY THE MINISTER OF COMMERCE.

The chambers have legal rights and can transact business within their province, bring suits at law, etc. Up to the present time the authority of the "Handelsminister" (Minister of Commerce) over the several boards of trade or chambers of commerce has not been established by law. But custom and undisputed practice have given

to him almost absolute authority to direct the establishment of and to control or to dissolve all such bodies. The Government values very highly the decisions and experience of these boards. The Minister of Commerce may ask for opinions and reports from the boards of trade; and certain information from the Government is conveyed to them through his office.

The opinions arrived at by the Chambers of Commerce are often the result of the deliberations of the general body, at which meetings experts on technical subjects may, under oath, give their opinions on commercial and scientific questions, and the proper action in their judgment to be taken in certain cases.

CHARACTER OF REPORTS FURNISHED.

It is apparent that in a country where the railway, telegraph, telephone, and express business is conducted by the Government a board of trade is often in a position to give valuable advice in regard to postal and transportation matters. From the reports furnished to the Minister of Commerce by the Boards of Trade, the Government receives practically an official and unprejudiced statement of the condition of commercial affairs throughout the country. These reports are asked for and opinions requested upon all proposed legislation effecting commercial interests, both domestic and foreign. Besides protecting the interests of commerce and industry of the nation, each Chamber collects and distributes data concerning the commercial conditions, necessities, and wishes in their respective districts. They guard the physical and moral well-being of apprentices and other employees. The Exchange (Börse) is under their jurisdiction, as are the bonded warehouses for dutiable imported goods, and sometimes the commercial museums, trade schools, etc.

Each Chamber publishes annually a detailed report, based on the most exact and trustworthy information, concerning the situation and the intentions of the industrial and commercial establishments in the district, each branch segregated, and the actions of the Chamber itself during the past year. The data for these reports is obtained by collecting facts from industrial institutions and commercial houses. Reports are also often made by many of the principal firms in the district. The observations and opinions of members living in the various parts of the districts and who know and represent different branches of manufacture and trade, are often incorporated in the reports. A thorough study of the controlling conditions is made, and such information is often obtained by circular inquiries.

SUBJECTS OF DISCUSSION.

The subjects discussed are here enumerated in order to illustrate the interest taken by the boards in all matters of trade, commerce, etc. For example the last annual report of the Hanover Chamber of Commerce, 1905-6, gave a list of the various laws that had been enacted in 1905; also a résumé of the changes in the common law concerning building lots, limitation of the right to work on Sunday; rest during the Christmas holidays; commercial travelers who sell at retail; bribing of employees; the law concerning preliminary work before constructing roads; liability of those owning animals in case of damage or accident caused by them; compulsory arbitration in case

of bankruptcy; publication of prepayments on stock where a new company is formed; extension of compulsory arbitration; insurance against sickness; appointing inspectors in business; right to work overtime during special rush in business; employment of preserving cans and glasses; packages containing a definite amount of material; revision of the law concerning the sale of medicines by dealers in paints and similar articles ("Drogenhändler;" not equivalent to our American word "druggist"); permission to alter the character of a business; responsibility of pawnbrokers for watches and articles of gold; representation of commercial and industrial branches in chambers of commerce; standardizing brandy barrels; estimating the cost in the case of offers concerning the trade registers; representation of middlemen in Kartells, or trusts; relation of the "Spiritus Centrale," or alcohol trust, to the investigation concerning Kartells; extension of municipal employment bureaus, and female employment.

In addition to the foregoing the consul-general furnishes a long list of subjects discussed covering matters relating to every branch of German commercial and industrial activity and the relations of these to foreign markets, transportation and mail facilities, packing, local taxation, customs duties, etc.

SAFEGUARDING HOME INTERESTS.

The chambers have the right to nominate experts in various branches; to administer oaths to them and appoint them to office. The chambers of commerce pay special attention to export and import in their districts, as far as they have local bearing; and an effort is constantly being made to guard home commercial interests in every manner. Disadvantages or unfavorable influences working against the German exporters are brought to the notice of the chamber of commerce and an effort made to remove them by suggestions, reports, or representations to the Government. The advice of experts is often obtained, and the information imparted to the inquirer. In this particular, the Rhenish-Westphalian chambers are of special influence. They further German exports by calling attention to unjust discriminations and wrong practices with regard to customs, freight rates, railway and steamer facilities, and complaints or disagreements of firms; decide questions, where possible, or refer them to the General Government. As far as their power goes, they advise, make decisions, and hand in petitions. They keep informed, by special detailed reports, concerning the condition of export and import trade, and fluctuations, and discuss means and projects for bettering conditions when they are unfavorable.

PROMINENT FEATURES.

Abuse of the mails is guarded against to a certain extent by requiring all companies or firms to show the Board of Trade evidence of good faith before postal money orders will be delivered to them.

The Board of Trade appoints a commission to investigate the conditions under which a new company intends to do business; should the results not be satisfactory the registration is refused to the company. The board may act as an arbitrator between registered firms or companies and may administer oaths. To a certain extent it is regarded as a judicial body, and its decisions do not require the further sanction of another authority.

The most characteristic features of a Prussian chamber of commerce may be enumerated as follows:

A system of obtaining and distributing information of a technical character.

Judicial and notarial functions.

Authority to prevent possible fraud by controlling registration of new companies and firms.

Semiofficial relations with the provincial and general governments.

GERMAN CONSULAR REPORTS.

The annual report of the chamber of commerce of Frankfort on the Main, Germany, in which the business of the Empire during the year 1906 is reviewed, contains the following:

It would be very desirable that the German consulates be instructed to investigate transoceanic markets so as to afford our home manufacturers the opportunity to put in bids and to make suitable offers. The consuls should by official orders, be urged to do this work, as has been done in such efficient and expert manner by the consulates of the United States, resulting to the great advantage of the American industries.

COUNTRY'S FOREIGN TRADE.

STATISTICS SHOW CLOSER RELATIONS WITH SOUTHERN EUROPE.

The Berlin correspondent of the London Commercial Intelligence furnishes the following review of German imports and exports for 1906:

Some very clear light is thrown upon the trend of German foreign trade, and in particular upon the market in Germany for British exports, by the official figures just published for imports and exports for the year 1906. They show very plainly that trade relations have not developed between the United Kingdom and Germany to anything like the extent that they have between Germany on the one hand and France, Italy, Austria-Hungary, and Belgium on the other. In fact, German goods exported to Great Britain in 1905 made up a seventh of the total export from the country; in 1906 they only made up an eighth. At the same time, British goods imported into Germany in 1906 showed an increase of about 15 per cent over the amount totaled in 1905, but that increase is easily beaten by both France and Italy, whose exports to Germany have increased by some 20 per cent during the past year, while they themselves took about 40 per cent more German goods than they did in 1905. The trend of German trade is consequently altogether away from England's direction, and is concentrating itself more and more upon southern Europe. This consideration naturally makes one ask what proportion of the present enormous demand for iron, steel, and railway material existing in Italy is being secured by Germany, and how much by Great Britain.

Germany's total imports last year were valued at \$2,008,482,000, as against \$1,769,768,000 in 1905 and \$1,633,632,000 in 1904; exports, \$1,546,286,000, as against \$1,390,158,000 in 1905 and \$1,264,970,000 in 1904. Exports to France in 1905 were \$69,734,000, in 1906 \$91,154,000; to Italy in 1905 \$39,032,000, in 1906 \$54,740,000; to Austria-Hungary in 1905 \$138,040,000, in 1906 \$154,462,000; to Belgium in 1905 \$74,256,000, in 1906 \$84,490,000; to Sweden in 1905 \$37,128,000, in 1906 \$42,128,000; to Switzerland in 1905 \$85,442,000, in 1906 \$89,012,000. To Russia, a market of growing importance for iron and steel goods, German exports advanced about 17 per cent during the past year.

AMERICAN PRODUCTS.

THE FRANKFORT CHAMBER OF COMMERCE COVERS VARIOUS SUBJECTS.

The annual report of the Frankfort Chamber of Commerce recently issued reviews the business conditions of Germany during

the past year. It contains some allusions to American products which are used in Germany. Consul-General Richard Guenther has translated the passages relating thereto, as the knowledge of these may be useful to producers and shippers in the United States:

For the first time in many years North America offered large quantities of wheat for sale in our markets, which led to heavy purchases being effected in red winter and in hard wheat, as the prices for these were lower than the better grades of La Plata (Argentine) wheat, which were getting rather scarce. These purchases, however, caused great disappointment and loss to the buyers. In former years our dealings in American wheat were almost entirely in No. 2 of both red winter and hard wheat, and we were accustomed to get, under this No. 2 classification, a very good wheat of pretty high natural weight. But this year the wheat certified as No. 2 was altogether poor and of light weight, while that which came to us under the certification No. 1 correspond in quality to the No. 2 of former years.

Furthermore, it was established beyond doubt that the new crop certified No. 2 wheat contained an admixture of old poor quality wheat amounting to 25 per cent; in some cases even more. This wheat for the most part was in bad condition when reaching European ports, and the dealers and millers, who made the purchases on their experiences of the No. 2 of former years, got something quite different from what they expected. The wheat certified as No. 1 turned out pretty satisfactorily, but commanded an advanced price of 6 to 12 marks (mark=23.8 cents) per ton of 2,204.6 pounds.

BAD CONDITION OF CORN SHIPMENTS.

Owing to the higher tariff imports of the new law, which went in effect on March 1, 1906, large quantities of North American corn were ordered to be shipped in December and the first fortnight of January—a rather dangerous period for new grain, and for this reason formerly avoided. Many of these cargoes reached the Rhine ports in a damaged condition and caused severe losses, while the grain sent by railroad from the seaports came in pretty good condition to the interior German markets. As the North American corn appeared later on to retain considerable moisture, the importation, on account of the great danger, had to be stopped.

During last year well-attended congresses were held in London and Berlin by the European grain importers for the purpose of effecting an improvement in the purchasing conditions of American corn and to reduce the dangers attending its shipment. It was resolved at these meetings to send delegates to America in pursuance of these aims, and it is hoped that they will be successful in obtaining better terms for contracts and for the certification of the grain.

OTHER PRODUCTS.

Cotton-seed meal received much greater consideration last year. This is to be attributed to the high prices prevailing for oil cake.

Dried malt dregs were largely imported from America and are popular as feed stuff for stock in Germany. Several American brands have attained a firm footing in the German markets.

The meat supply for the city of Frankfort in 1906 was very unfavorable compared with that of the preceding year, the arrivals at

the stock yards showing a shortage, against those of 1905, of 8,500 head of swine and 5,000 head of calves. The consumption of horse meat in Frankfort last year increased 50 per cent over that of the year 1900. Frankfort's meat supply has not kept pace with the increase of the city's population. The great advance in the price of all meat stuffs has led to a reduction in the consumption of meat, particularly in preserved beef tongues and corned beef. The exacting rules regarding the importation of foreign meat force the German meat trade to work up the high-priced domestic stock, causing the prices for beef tongues and corned beef to be 40 per cent higher than the best American products of this class.

NORWAY.

ANNUAL COMMERCIAL REVIEW.

DEVELOPMENT OF RESOURCES—OUTPUT OF FISHERIES.

Consul-General Henry Bordewich, of Christiania, in his annual report covering the trade of Norway for the calendar year 1906, says:

The total trade of Norway during 1906 amounted to \$150,308,000, of which \$89,995,000 represented imports and \$60,313,000 exports. The increase in imports was \$6,289,000 and in exports \$8,407,200 over 1905; but as the figures include iron ore in transit, the actual values of the imports and exports were considerably less.

Norway is making steady progress in the development of its resources. Two industries especially, the canning of fishery products and the manufacture of paper, are in a very flourishing condition. The canning establishments at Stavanger value last year's output of sardines and herring at \$1,840,000. Employment is given to some 10,000 people. There is also at the city of Moss a flourishing canning establishment.

Of paper, especially wrapping paper, the exports are steadily increasing. The output of lumber, wood pulp, and fishery products, as well as of all other articles of export, has been quite satisfactory.

The articles exported during the year were artificially colored wood, brick, steel, emery wheels, tool handles, rough hewn stone, such as syenite and granite, for monuments. Norwegian spruce and pine trees, for planting, as well as forest-tree seeds, are in large quantities being exported to Argentina.

There were in Norway 3,173 industrial plants, employing 79,457 people in 1900, but the number increased to 3,729 in 1906, employing 86,524 persons.

TRADE WITH AMERICA—CROPS AND SHEEP RAISING.

The trade with America is in a prosperous condition, and efforts are constantly made to introduce new goods. By first showing samples, trade might be secured for certain lines of goods that otherwise hardly can be introduced in the market. This is particularly true in regard to cotton goods, boots and shoes, notions, dry goods generally, perfumery, druggists' sundries, and a variety of other articles, and exporters of such goods should send their salesmen, who visit other European countries with lines of samples to Norway.

The crops were inferior to the abundant crops of 1905, but may be said to have reached a fair average. Norway will again have to import its customary supply of grain and other food and feed products. Waste lands are constantly being brought under cultivation, especially in the tracts around Stavanger. Better methods in farming are adopted gradually; much attention is given to stock raising. Norway is especially well suited for sheep raising, and the number of flocks is fast increasing; coarse-wool sheep of native stock give the best returns. They are so hardy that in some districts they pass the winters outdoors, receiving little attention from the owners.

SHIPPING STATISTICS AND FISHERIES.

The shipowners in this district have reason to be tolerably well satisfied with the results of the year's labors. New ships, especially steamers, are constantly being added to the fleet. There is considerable tonnage employed in the ice trade. In the trade carrying Swedish iron ore from Narvik, northern Norway, were employed 113 Norwegian, 158 Swedish, 84 German, and 21 British steamers. There were exported 1,656,204 tons of ore from the place. The merchant fleet of Norway consists of 7,269 ships of 1,486,502 tons. Of these, 1,500 are steamers of 667,000 tons burden, and 5,769 sailing vessels of 809,502 tons burden.

The number of cod taken during the winter and spring fisheries was 46,500,000. This is less than an average, but prices ruled high and the people interested appear satisfied with the outcome. The herring, mackerel, and halibut fisheries gave fair returns. There is reason to believe that the net profits derived from the different fisheries, including those in arctic waters, will be found above the general average. This is principally owing to the high prices obtained for the products. The prices at Bergen for codfish ranged from \$13 to \$25 per 220 pounds. The best steamed cod-liver oil brought \$16.61 per barrel of 30 gallons. Prices on salted herring varied much according to demand and quality, all the way from \$4 to \$8 per barrel.

SWEDEN.

INDUSTRY AND COMMERCE.

MINERAL OUTPUT—DAIRY PRODUCTS—FOREIGN TRADE.

Consul-General E. L. Adams, of Stockholm, reports on the trade and industries of Sweden, as follows:

From the latest official reports there were 326 different iron mines worked in Sweden in 1905. The total production was 4,464,833 tons of ore. This is a decrease of ten mines, but an increase in the output of 380,888 tons, compared with the previous years. The total value of the ore products was \$6,164,784, against \$5,700,005 in 1904. During 1905 there were in operation 129 furnaces, producing 539,437 tons of pig iron, worth \$10,091,396. There were also 511 other iron and steel concerns producing ingots, etc. The value of unwelded iron blooms was \$5,379,702, of ingots \$9,835,654, and of blistered steel \$47,159. The value of the charcoal used in the whole iron-producing industry was \$5,858,852.

There were also produced in Sweden gold ore valued at \$36,450; silver and lead, \$52,801; copper, \$114,255; manganese, \$7,961; zinc,

\$796,666; sulphur pyrites, \$59,019; coal, \$636,550, and clays, \$106,313. The number of persons employed in the manufacture of the different metals was 31,222. During the year 1,107 accidents occurred, resulting in 30 deaths. There were 94 strikes, involving 413 establishments and 8,950 laborers.

DAIRY INDUSTRY.

During the last five years the number of dairies in Sweden has decreased from 1,681 to 1,575. This was due to a number of the smaller dairies having been consolidated with larger establishments, especially on the cooperative basis. The number of these cooperative dairies has increased from 430 to 470. An increase of production has taken place every year during the five-year period. The increase of butter manufacture from 1900 to 1905 was 26,114 to 28,000 tons. The southern part of Sweden has the largest increase. The main export of Swedish butter is to the English market, where it competes with the Danish product. The manufacture of cream cheese has increased, while that of skimmed-milk cheese has decreased yearly. In the province of Skaraborg is produced 60 per cent of the entire country's output. There the production was 2,718 tons cream cheese and 227 tons skimmed-milk cheese.

IMPORTS AND EXPORTS FOR NINE MONTHS.

The principal articles of import into Sweden during the first nine months of 1906 are shown in the following statement:

Articles.	Quantity.	Articles.	Quantity.
	<i>Tons.</i>		<i>Tons.</i>
Animals, living.....	a 4,900	Preserves, canned goods, etc.....	506
Brandy and spirits.....	b 490,323	Provisions.....	12,013
Breadstuffs.....	308,023	Saltpeter.....	29,900
Cotton goods.....	13,499	Sirup and molasses.....	7,617
Fertilizers.....	135,095	Textiles.....	3,944
Machines, tools, etc.....	c 4,076,515	Tobacco.....	1,744
Metals.....	100,339	Vegetables.....	12,419
Oil.....	60,389	Yarn.....	2,026
Oil cake.....	62,096		

* Number.

* Gallons.

* Value.

The leading articles of export were: Fish, 21,601 tons; animals, 22,300 head; metals and manufactures, 2,762,973 tons; lumber, 4,119,980 cubic meters; eggs, 2,040,000 dozens; paper, 82,850 tons; wood pulp, 236,565 tons, and matches, 13,277 tons. There were also exported builders' materials, valued at \$1,889,980, and machines, tools, and implements worth \$3,386,965.

FRANCE.

COMMERCE OF LIMOGES.

LABOR CONDITIONS SATISFACTORY—EXPORTS TO THE UNITED STATES.

Consul E. L. Belisle, of Limoges, France, in his annual report for 1906 states that the general conditions of business in that consular district during the past year have been satisfactory. He adds:

The various manufacturing industries have been favored with sufficient orders to keep them busy, running full time. The employees

appear to be satisfied and have caused very little trouble. The few disagreements between employers and workers have been settled quickly and without material concessions on the part of the employers. As a consequence, there is a general feeling of confidence among manufacturers. Several are enlarging the capacity of their plants. This is particularly true of those exporting to the United States.

The drought which has prevailed over this section of the country began about the middle of May and lasted until the first days of October. Its effects have been disastrous to the small farmers, and particularly to the small market gardener, who depends for his livelihood on the sale of vegetables and fruits to the residents of the cities and towns. He has very little to sell and of an inferior quality. The large market gardeners, well equipped as they are, have a good supply of vegetables to offer, and they are well repaid for the trouble and expense occasioned by the necessity of constant irrigation during the summer months. The prices of vegetables have been about 40 per cent higher than the average, and bid fair to remain so until next summer. This naturally means considerable hardship for the poor people. There has also been an increase in the price of meat, owing to the greater cost of articles necessary to the fattening of animals for the market.

INCREASED EXPORTS OF PORCELAIN—FIRST SHIPMENTS OF SKINS.

The increased exportation of porcelain to the United States from this district is evidence that Limoges china is not losing its hold with the American public. The twelve months ending December 31, 1906, show an increase of \$212,042 over the same period in 1905. There is an increased demand for this china in countries other than the United States. Improved methods and machinery have enabled the factories to produce a much larger quantity than in former years, and a new market had to be found for it in order to give employment to the workers.

Sheepskins figure for the first time in the exports from this consular district for the past year. An experiment is being made by the owners of a large tannery to export the skins to the United States and there prepare them for the glove manufacturers. A factory has been purchased by these exporters. It is located at Kenilworth, N. J. If the results of this experiment prove satisfactory, a large business will surely be established, as those interested have the money needed for a large enterprise. The exports of this firm for 1906 amounted to \$132,701.

The following table of declared exports to the United States from this consular district for the calendar year 1906 shows an increase of \$378,711 over the corresponding period in 1905:

Articles.	Value.	Articles.	Value.	Articles.	Value.
Automobile parts ...	\$307	Household effects ..	\$1,050	Truffles.....	\$2,578
Books	1,918	Hatter's fur	32,568	Walnuts.....	156,204
Bristles	1,360	Machinery	271	Other articles	66
China	1,802,108	Mushrooms.....	10,033	Total	2,183,564
Filtering papers.....	798	Rags.....	608		
Glue.....	39,821	Sheepskins.....	132,701		
Grapevines.....	963	Soldering plates....	211		

AUSTRIA-HUNGARY.

AUSTRIA'S AMERICAN SALES.

DECLARED EXPORTS LAST YEAR TO THE UNITED STATES.

Consul-General W. A. Rublee writes from Vienna that the value of the exports from Austria, exclusive of Hungary, to the United States during the calendar years 1905 and 1906, as declared at the several American consulates in Austria, appears in the following table:

District.	1905.	1906.	Gain.
Carlsbad	\$1,531,688	\$1,649,203	\$117,515
Prague	1,789,901	2,323,186	533,285
Reichenberg	2,682,405	3,187,876	505,471
Trieste	1,505,585	1,806,368	300,773
Vienna	5,421,106	6,189,124	768,018
Total	12,930,695	15,155,757	2,225,062

As compared with the more important commercial nations the volume of Austria's export trade to the United States is small, but the increase of \$2,225,062 during the year 1906 is relatively striking. Among the principal items of export are linen goods, glassware, beer, hops, porcelain, magnesite, skins, bent-wood furniture, and steel bars.

HUNGARY'S TRADE RECORD.

IMPORTS INCREASED MANY MILLION DOLLARS LAST YEAR.

Consul-General Frank D. Chester sends from Budapest the following brief review of the foreign trade of Hungary for last year:

According to preliminary annual statistics Hungary's export trade in 1906 was \$293,226,207 in value, or \$4,861,647 less than the imports, which amounted to \$298,091,557. The imports were \$21,193,200 greater than those of 1905. From Austria the importation of goods was \$17,275,300 greater than in 1905 and totaled \$229,226,991.

The principal cause of the decreased exportation from Hungary to the outside world was the raising of Germany's tariff on some of the chief German imports from Hungary, namely, on barley, cattle for slaughter, horses, poultry and game, and malt. Hungary's statistician deplores the increase in the export of bran, but rejoices in that of the export of eggs to Germany in 1906. The increase was mostly due to the three months' respite previous to March 1, 1906, before the new German tariff went into force. Owing to the troubles in Servia, Hungary's swine export increased in amount, but not greatly in value. Almost the entire amount went to Austria. It is clear that Hungary would be better off if she could have freer trade with Servia separately from Austria.

While the import of machinery increased from 10,488,500 short tons (of 2,000 pounds) to 11,487,500 tons, that part of the import which came from Austria hardly increased in amount. The same was true of coal. In chemicals and paper goods the imports from America increased, these being the lines in which we can more easily compete with other countries.

GREECE.

FOREIGN COMMERCE.

TRADE WITH THE UNITED STATES—INCREASED COST OF LIVING.

Consul-General George Horton, of Athens, reviews the foreign trade of Greece as follows:

The exports from Athens and Piræus to the United States during the calendar year 1906 amounted to \$397,734, an increase of \$129,647 over 1905. The leading articles were: Cheese, valued at \$33,059; chrome ore, \$64,151; cognac, \$29,286; olive oil, lubricating, \$75,292; magnesite ore, \$29,664; goatskins, \$49,356, and sponges, \$38,642.

The imports into and exports from Greece for the six months ended June 30, 1906, are shown in the following table:

Articles.	Imports.	Exports.	Articles.	Imports.	Exports.
Agricultural products.....	\$3,726,103	\$3,553,987	Metals and raw materials	\$1,151,799	\$2,793,041
Animal products.....	441,105	426,060	Oils, etc.....	231,510	1,693,394
Chemicals and drugs.....	842,071	28,030	Paper and paper products	306,510	1,534
Cotton, wool, and fabric goods.....	1,849,121	13,560	Sugar, etc.....	283,236	36,315
Fishery products.....	485,591	94,259	Wines and liquors.....	33,458	1,058,805
Forest products.....	786,536	167,875	All other articles.....	1,105,522	46,761
Live stock.....	342,019	32,009	Total.....	12,411,191	9,949,565
Metals and minerals, worked.....	826,610	13,906			

The imports for the six months show a decrease of \$61,805 and the exports an increase of \$3,981,086, as compared with the corresponding months of 1905. The value of Greek imports and exports, by countries, for 1905 was as follows:

Countries.	Imports.	Exports.	Countries.	Imports.	Exports.
United States.....	\$297,604	\$1,243,045	Belgium.....	\$439,363	\$399,150
United Kingdom.....	5,310,767	4,656,284	Roumania.....	726,225	122,357
Russia.....	5,350,967	156,508	Netherlands.....	870,900	1,385,796
Austria-Hungary.....	3,752,772	1,520,223	Egypt.....	121,368	1,144,211
France.....	1,949,506	1,366,115	Other countries.....	1,941,676	863,343
Turkey.....	2,998,905	871,665	Total.....	27,136,831	15,992,370
Germany.....	2,682,060	1,450,293			
Italy.....	1,194,718	823,378			

Formerly Athens was a very cheap place in which to live, but in recent years the price of articles of food and necessities have advanced until they are as high, if not higher, than in America. The cost per pound in United States currency of some of the principal articles are: Butter, \$1.03; beans, 5 cents; boiled ham, \$1.04; raw ham, 45 cents; beef, sirloin, 17 cents, and fillet, 38 cents; lamb, 32 cents; pork chops, 18 cents; leaf lard, 19 cents, and sugar, 10 cents. Eggs sell for 33 cents per dozen; salmon, 54 cents per pound can; fresh milk (cow's), 54 cents per gallon; oatmeal, 50 cents per pound package; petroleum, 75 cents a gallon, and coke, \$10 per ton.

ITALY.

FLORENCE-AMERICAN TRADE.

AN ITALIAN CITY EXTENDS ITS SALES IN THE UNITED STATES.

Consul Jerome A. Quay furnishes the following statistics concerning the trade of Florence with the United States in 1906:

The aggregate value of declared exports from this Italian port to America during the calendar year 1906 was \$1,844,312, an increase over 1905 of \$274,254. The articles of export which contributed to the increase of business were: Straw goods, antiquities, books, household effects, food products, wine, terra cotta, mosaics, and oil paintings; while marble and alabaster statuary, bronzes, photographs, porcelain, skins, and hides, show a decrease in value of shipments. Straw goods constitute by far the chief article of exportation; the shipping season begins in October and ends in March. Formerly straw shipments were made almost exclusively to New York, but now the trade has spread to interior ports of entry in Ohio, Iowa, Illinois, Minnesota, Wisconsin, and even to Manila and Porto Rico.

The consular agency at Bologna has more than doubled its business of invoicing shipments to America, owing to the fact that many articles of exportation, such as sausage, cheese, etc., which were heretofore invoiced at seaports, are now, under the requirements of the recent act relating to food products, shipped from the place of production.

There were imported during the year 1906 from the United States into the Florence consular district more than 50,000 small iron safe boxes, purchased, respectively, by the savings banks of Florence, San Miniato, Bologna, Reggio-Emilia, Ravenna, the Popular Bank at Ferrara, and the Loan Institution at Bologna for gratuitous distribution among the small depositors of the banking institutions. An American representative is located in Florence for the purpose of introducing these safe boxes throughout Italy. This shows American exporters the advantage of having their wares introduced by their own representatives.

Rifredi, a suburb of Florence, contains a large number of mills and laboratories devoted principally to the manufacture of glassware, fabrics, and chemical productions, and many new manufactories are contemplated.

EXPORTS TO THE UNITED STATES.

The articles declared at Florence for export to the United States during the calendar year 1906 were as follows:

Alabaster goods	\$67, 848	Porcelain	\$24, 297
Antiquities	80, 802	Skins and hides	102, 178
Furniture	45, 478	Straw braid	517, 804
Majolica ware	15, 019	Straw hats	506, 306
Marble statuary	61, 162	Straw, unclassified	153, 531
Oil paintings	75, 428	Wine	47, 193
Olive oil	6, 625	All others	98, 521
Onions and garlic	16, 533		
Paste food, prepared	25, 579	Total	1, 844, 312

TRAMWAY EXTENSIONS.

The Belgian Tramway Company has very much extended its lines throughout Florence and its dependencies during 1906. Nine different

ramifications, all converging into the center of the city, were completed, and the company now has some 95 miles of lines run by electricity, 115 miles by steam, with 50 miles under construction. It employs about 600 men in its workshops, and about the same number in operating the lines. The trolley system is used for all the lines with Brill trucks and Thomson-Houston electric motors. The central power station is equipped with 4 engines (3,000 horsepower) fed with Cardiff coal, supplied with steam from 8 English boilers. The current is generated by 4 dynamos, and the accumulator battery has a capacity of 1,000 ampere hours.

SPAIN.

NEW COMMERCE COMMISSION.

A BUREAU OF EXPORT TRADE ESTABLISHED AT MADRID.

Mr. W. M. Collier, American minister at Madrid, sends a copy and translation of a royal decree establishing a commission of international commerce in Spain for the special purpose of fostering its commerce in Morocco and in the countries of Latin America, which decree he states should be of value to the commercial interests of the United States. It reads:

ARTICLE 1. A commission of international commerce is created, composed of the director-general of agriculture, industry, and commerce; the subdirector of the customs; the chief of the commercial section of the ministry of state; four representatives of the chambers of commerce, two of the chamber of agriculture, two from the industrial entities legally constituted which solicit this right, two from the General Association of Graziers of the Kingdom, and the director of the superior school of commerce, who will act as secretary.

DUTIES OF THE COMMISSION.

ARTICLE 2. This commission shall occupy itself with the following subjects: First. Study of the commercial information which is received through the medium of the ministry of state. Second. Examination of the reports which the commercial agents periodically remit. Third. The formation of the differential classes of the tariff duties established in the European and American countries, especially regarding articles similar to those of our production. Fourth. Determination of the causes which facilitate the commercial expansion of some European countries in Morocco and in some Spanish-American countries. Fifth. Organization of commercial propaganda in the countries in which commercial agents are established. Sixth. Information as to the means for extending our commerce in the countries in which the solidarity of race aids us in struggling advantageously in mercantile competition. Seventh. Preliminary study of the bases for the conclusion of commercial treaties. Eighth. Arrangement of whatever information the Government may consider necessary for giving effect to the purpose of extending the commercial relations.

ARTICLE 3. This commission shall meet at least once a week, and, in addition, whenever the minister of fomento may consider it necessary.

ARTICLE 4. In order to facilitate the work with which this commission is charged, and at the same time as a means indispensable for giving effect to its resolutions, there are created four commercial agents, who shall reside, respectively, in Mexico, Buenos Aires, Valparaiso, and Tangiers. The sphere of action of each one of these agents shall comprehend, for the first, the Republic of Mexico, Guatemala, San Salvador, Honduras, Nicaragua, Costa Rica, New Granada, Venezuela, Cuba, and Porto Rico; for the second, the Republics of Argentina, Uruguay, Brazil, and Paraguay; for the third, the Republics of Chile, Peru, Bolivia, and Ecuador; for the fourth, the Empire of Morocco.

SELECTION OF AGENTS AND THEIR DUTIES.

ARTICLE 5. The personnel of fulfilling these duties shall be named by the minister of fomento from among those included in the four groups of three names

which the chambers of commerce, associated for this purpose, shall prepare. To figure in these groups of three, it is required that one shall have resided at least two years in some of the countries enumerated in the division established in the preceding article; that one shall have the methods of business in some of the branches of our production, and that the chambers of commerce shall certify to their credibility and social conditions. They will not be able, however, to perform the duty devolving upon them without the authorization of the ministry of state, who will have to send them the necessary instructions governing their relations with the diplomatic and consular corps accredited to the nations referred to, and of which corps they shall be mere auxiliaries.

ARTICLE 6. The duties intrusted to these functionaries shall be: (a) To draw up quarterly reports regarding commercial questions of the countries which are comprised in their field of action, giving attention preferably to the subject of the tariff; (b) to give to the diplomatic representatives and consular agents the assistance of their special experience; (c) to help with their knowledge Spanish merchants in the development of their business; (d) to favor the initiatives of the commercial enterprises of Spanish origin which have for an object the propaganda of the articles of national production; (e) to cultivate friendly relations with chiefs of commercial sections of official character and with the representatives of the large industrial and mercantile enterprises; (f) to propose the means most efficient for extending our commerce, observing the tastes of the countries subject to their study, pointing out the obstacles which at present repress the extending of our commercial relations, and indicating the procedure most adequate to remove them.

CORRESPONDING MEMBERS OF THE ORGANIZATION.

ARTICLE 7. The commission of international commerce, on its own initiative or at the instigation of the chambers of commerce, and after looking up the preliminary information considered necessary, shall propose to the minister the names of such Spanish residents in the American Republics and in the Empire of Morocco, whom, by their landed property, social representation, and proved patriotism, it esteems suitable to assist in the work of commercial propaganda, who shall be named corresponding members of the superior institute of agriculture, industry, and commerce, or of the department which it replaces, with the category of superior chiefs of administration, according to the royal decree of organization of the said institute.

ARTICLE 8. As soon as established the commission shall proceed to formulate the estimate of cost of sustaining the commercial agents, and, in so far as there does not figure in the budget of the state special appropriation for this service, it will be asked of the chambers of commerce in order that they may satisfy them without prejudice to the aid which the Government can give them, this being charged to the section destined for subvention of this kind. the system being established immediately in that part which does not give rise to expenses.

ARTICLE 9. The minister of fomento, in agreement with the minister of state and on the proposal of the commission, shall dictate the by-laws for regulating its functions and those for the different organizations which may be associates to aid it in achieving its ends.

PUBLIC WORKS.

OFFICIAL REGULATIONS FOR USE OF FOREIGN PRODUCTS.

The British ambassador at Madrid forwards to the London Trade Journal a translation of a law, dated February 14, respecting the exclusion of foreign articles and products from public works in Spain, a summary of which is given:

In contracts for accounts of the State for all kinds of services and public works articles of national production only shall be admitted; but the Government may rule that propositions shall be submitted by foreign industries on the following grounds: (1) Owing to imperfection of the national product declared after analysis and experiments in the presence of the interested parties; (2) owing to a notable difference in the cost of the national production in the place of production as compared with the foreign product; (3) owing to recognized urgency which Spanish industry is unable to meet, and (4) owing to the nonexistence of the said industry in Spain.

Every year, in the month of September, there shall be published a detailed list of the articles or products for the acquisition of which participation of foreign industry is considered necessary. Provision is made when to file petitions against the list submitted to the presidency of the council of ministers, and proofs can be filed up to November 30.

PORTUGAL.

CORTICITE.

THE NEW MATERIAL FROM CORK.

Consular and Trade Reports for June 25, 1906 (No. 2598), contained a brief report from Vice-Consul R. H. Kinchant, of Lisbon, Portugal, describing a new insulating material invented by a Portuguese cork merchant, of which samples were furnished the Bureau of Manufactures. The report attracted wide attention, and, in compliance with numerous applications, the samples were loaned and circulated. The samples finally were lost in transit, and Consul-General Louis H. Aymé was requested to furnish others. These have been received and are at the disposal of manufacturers and others interested. Of the new material Vice-Consul Kinchant wrote:

This new insulating material has for its principal component granulated cork, and is called "corticite." Its application is unlimited, for it will resist the cold of a Siberian winter and the rays of a tropical sun; also the attacks of insects, even the white ant being powerless against it. As a nonconductor of sound it should be useful in city flats. On boiler tubes and boilers it is said to reduce the temperature of the boiler room to an agreeable one. It is not inflammable, and may be generally adopted for partitions and linings of houses. Bricks and slabs of "corticite" are made for this purpose, and can be sawed and bored like wood. It would seem to possess special advantages for use on war ships, taking the place of wood as far as possible.

USED FOR FLOORS.

Consul-General Aymé forwards samples of corticite and writes:

In addition to those uses of corticite noted by Mr. Kinchant in his report of May 15, 1906, a very important use is for flooring, and I inclose a sample of such flooring in each package. These samples show only one color and of single thickness. There are several colors, although the red is most even in tint, and a double thickness. The material is applied directly to the floor, to which it very strongly adheres. It requires two or three days to dry and is then claimed to be fire, water, and sound proof. I have seen an office floor of corticite in constant use for more than a year, and it does not show the least sign of wear. Great durability, amounting to almost indestructibility, is claimed for it, and it is easily cleaned and kept clean. It is not very expensive, single thickness floors being laid for about \$1 the square yard. Corticite floors would seem to be the ideal thing on war vessels, passenger steamers, hospitals, school-rooms, and, indeed, wherever large numbers of persons congregate and sanitary conditions are important. Corticite floors are insect and germ proof, as well as sound, fire, and water proof. They are warmer than oilcloth or linoleum floors and are pleasant to walk upon. They can not rip, tear, nor splinter, and the walls if desired may be similarly coated. I am informed that during the past year nearly a million square meters of corticite floors have been laid.

SERVIA.

COMMERCE OF KINGDOM.

DECREASE IN IMPORTS AND EXPORTS—HOW AMERICA STANDS.

In reviewing the trade of Serbia, Consul M. K. Moorhead, in his annual report, from which an abstract is taken, writes from Belgrade, as follows:

The total value of the imports into Serbia from all countries in 1905 amounted to \$11,120,128, a decrease of \$1,065,152 from that of the previous year. The chief articles of import were: Agricultural products, worth \$1,812,927; cotton goods, \$1,656,807; chemicals, \$170,134; iron and steel manufactures, \$1,270,308; paper, \$194,990; woolen goods, \$818,636; skins and hides, \$531,975; silk goods, \$134,110; tinware, \$92,306; salt, \$119,078, and glassware, \$97,638. Of the imports, Austria-Hungary furnished 60.4 per cent; Germany, 11.6 per cent; United Kingdom, 9.6 per cent; the United States 2 per cent, the remainder being distributed among other countries. The imports from America amounted to \$259,777, and consisted of the following principal items: Coffee, valued at \$188,058; sewing machines, \$11,868, and skins, \$31,903.

The exports from Serbia to all countries in 1906 amounted to \$13,918,068, against \$14,399,255 in 1905. The principal articles of export in 1906 were: Cattle, valued at \$382,000; hogs, \$2,194,400; wheat, \$4,268,445; prunes, \$2,123,640; minerals, \$450,000; and flour, \$304,943. Serbia's best customer was Austria-Hungary, which took 89.9 per cent of its exports, followed by Turkey, with 31 per cent, and Germany, with 2 per cent.

The declared exports to the United States, according to invoices certified at the Belgrade consulate, during the years 1905 and 1906 were:

Articles.	1905.	1906.	Articles.	1905.	1906.
Antimony regulus.....	\$285	\$30,713	Prune jam.....	\$6,488	\$8,804
Crushed prunes.....	6,318	7,893	Shearlings.....	6,711	.....
Goat skins.....	.....	63,297	Silk rug.....	.....	160
Hemp.....	1,477	1,653	Total.....	44,582	125,058
Lamb and sheep skins.....	23,083	12,533			
Plum brandy.....	270	.....		

TRADE-MARKS.

Trade-marks may be obtained in Serbia by foreigners on the same terms as by natives. They must be registered before the commercial tribunal at Belgrade, where three samples of the design have to be deposited, as well as catalogues of all the goods to be protected by the trade-mark. In the case of small articles, samples with the trade-mark thereon must also be furnished. A fee of \$3.86 is charged for the registration of the trade-mark, which is good for ten years and may be renewed for another ten years by re-registering. The tribunal of commerce decides all questions of infringements. In case this court gives the decision that a trade-mark has been

infringed upon, the guilty person is liable to a fine of not less than \$9.65 nor more than \$57.90. This fine is the property of the injured party, and a like fine may also be imposed for the benefit of the State. For a second offense the fine is doubled, and for a third, imprisonment for fifteen to sixty days and the closing of the guilty person's establishment for a period of from three to six months. In place of imprisonment a fine of 96.5 cents per day may be imposed. If the court decides that there has been no infringement, the person bringing the charge is liable for the above penalties. Trade-marks represented by a single figure or number, by the coat of arms of Serbia, or by anything immoral can not be registered.

INDUSTRIAL PROGRESS.

The industries of Serbia are not very important on account of the lack of good railroad facilities and the undeveloped condition of the mineral resources. In the years 1905 and 1906 there was considerable increase in the number of industrial plants. A new flour mill was built at Prokuplje and those at Krouchevatz and Alexinatz were enlarged. An electric plant was installed at the Government tobacco factory, which is the most complete and up-to-date industrial plant in Serbia. Two factories for the manufacture of bricks and tiles, each having a capacity of 20,000 bricks or tiles per day, were built in 1905. At Leskovatz a German firm built a factory for the manufacture of hemp goods. In this factory the refuse of the hemp is made into briquettes for fuel. A new weaving mill for hemp and flax was built late in 1906 in Belgrade. There are nine breweries in Serbia, which produce yearly 7,923,200 gallons of beer. In 1905 33,285,420 gallons of Schlivovitz, or plum brandy, were produced in Serbia. In December of 1906 a sugar factory in Belgrade commenced operation. It is expected that during the year 1907 enough of beet roots can be produced to supply all Serbia with sugar.

OPPORTUNITY FOR AMERICAN GOODS.

The indications are that the year 1907 will be one of much industrial and commercial development. The Government is to spend about \$7,000,000 on extending the State railway which, when completed, will open up a new mining region. American exporters of mining machinery should be able to do considerable business in Serbia during the next few years. No intelligent effort seems ever to have been made by American exporters to gain a share of the Servian trade. To accomplish anything in this market catalogues and all correspondence must be in German, prices in francs or crowns, weights and measures according to the metric system.

The great majority of the American goods in Belgrade are not bought direct from the United States, but through Austrian or German brokers. Among the American goods seen in the stores in Belgrade are hardware, meat choppers, iron brackets, kitchen cutlery, kodaks and films (sold as English), ink, fountain pens, typewriters, cash registers, California prunes, alarm clocks, electrical goods, and firearms. There should be a good chance to sell agricultural implements, iron and steel wares, cotton goods, cotton thread and yarns, boots and shoes (German imitations of American shoes are now sold), writing paper, and carbon paper.

RUSSIA.

COMMERCE OF BATOUM.

DECLINE IN GENERAL TRADE—INCREASE IN EXPORTS TO AMERICA.

Consul W. W. Masterson, of Batoum, in his annual report for last year reviews the trade of that Russian port, as follows:

The trade of Batoum, which is an index of the trade throughout the Caucasus, as it is practically the only port of entry, shows a steady decline over that of the two previous years. In fact the returns show that 1906 was the worst trade year in the history of the port. Of the imports the returns fail to show a single item shipped from America; this does not mean that no goods of American production have passed through the custom-house, but that the goods have been transhipped at European ports and the original shipping port can not be traced. The quantity of articles of import amounted to 24,586 tons in 1905 and 12,727 tons in 1906. The imports of tin plate decreased from 5,709 tons to 3,720 tons; timber, 7,835 to 57 tons; bricks, etc., 4,411 to 3,685 tons; and chemicals, paints, and oil, 500 to 238 tons. The articles showing increases were copper, iron, cast iron, and steel, which rose from 1,180 to 1,473 tons; machinery, 1,175 to 1,573 tons; sulphate of copper, 940 to 1,763 tons; and tin, lime, spelter, and lead, 583 to 763 tons. There were 644,754 tons of merchandise exported in 1905 and 505,118 tons in 1906. The leading articles were: Petroleum products, 470,217 tons; manganese ore, 16,506 tons; wool, 5,080 tons; licorice root, 8,450 tons; grain and flour, 1,744 tons; and wood, 1,636 tons.

TRADE WITH THE UNITED STATES.

While the general trade of Batoum shows a falling off, yet in the export trade with the United States there was a decided increase over 1905, the amount rising from \$2,462,048 to \$2,768,267. The principal item of export to the United States is wool, there being 35,800 bales shipped, at a value of \$1,440,575. The wool comes from the Persian, Caucasian, and Trans-Caspian countries and is used in America in the manufacture of fine carpets. Licorice root, the second largest item of export, is grown in the Trans-Caucasus provinces and is used in America in the manufacture of chewing gum principally. There were 104,326 bales of this article shipped, valued at \$621,438. The other large items of export were sheep and goat skins, manganese ore, and rugs. An attempt was made last year to introduce two articles of commerce into America that are produced in this district—champagne and tea—the shipments of the former article amounting to 40 cases, valued at \$3,170, and of the latter to the value of \$1,648.

The total declared values of the exports to the United States during the calendar year 1906 are shown in the following statement:

Articles.	Value.	Articles.	Value.
Almonds.....	\$3,090	Manganese ore.....	\$115,873
Camel hair.....	21,713	Rugs.....	95,137
Champagne.....	3,170	Sheep and goat skins.....	450,545
Clover seed.....	11,208	Tea.....	1,648
Intestines.....	3,875	Wool.....	1,440,575
Licorice root.....	621,433	Total.....	2,768,267

I am satisfied that the volume of trade going to America from Batoum is more than four times as much as that coming from America to Batoum.

AFRICA.

ALGERIA.

REVIEW OF COMMERCE.

INCREASING PROSPERITY—HINDRANCE TO AMERICAN TRADE.

Consul James Johnston, of Algiers, in his annual review of the commerce and industries of Algeria for the calendar year 1906, says:

There has been a general improvement in almost all branches of industry, as compared with the two preceding years. Crops have been excellent and prices very satisfactory to producers. The value of grain exported amounted to about \$10,000,000. The value of wine exported reached \$10,000,000, or 20 per cent more than in 1905. The exports of tobacco amounted to nearly \$1,000,000, while the imports of this article reached about \$500,000, one-half of which came from the United States. Of live stock, sheep were exported to the value of \$5,125,000.

Exports of corkwood have increased more than 20 per cent. Great care and attention is now being given to the forests, and the production may be expected to increase largely from year to year. The exports of marble last year nearly doubled. Some of the Algerian marble is very beautiful. General exports have increased in value to the extent of about \$10,000,000, chiefly owing to the large crop of cereals. There was an increase in value of general imports of a little over \$1,000,000. The small increase is evidently due to the bad times during the last two years.

TRADE WITH THE UNITED STATES.

A great hindrance in the way of trade between Algeria and the United States is the lack of direct communication. If America took a part of the quantities of alfa grass exported from Algeria for paper making, it might open a market here for American coal, which is at present excluded by the difference in freight as compared with England and Germany. Another hindrance consists in the unwillingness of American manufacturers to give the facilities offered by French and foreign houses. Having learned that there would probably be a good market here for a light, low-priced automobile if a sample car were exhibited at Algiers, an active and respectable commission agent in this city was persuaded to allow a machine to be placed in his establishment. He wrote to a manufacturer in the United States offering to take one on consignment. The offer was refused. A foreign manufacturer has taken advantage of a similar offer, and large sales have been made in consequence. To do an export trade, one must be prepared to conform to the prevailing conditions of the importing country.

Another difficulty consists in the absence of direct American representatives. A good salesman, knowing French and with some authority to modify prices and make concessions when necessary to

open a business, would almost certainly succeed. The falling off in the sale of American plows in this colony is due, in a great measure at least, to the activity with which foreign plows have been pushed by the direct representatives of the manufacturers.

The exports from Algeria to the United States during 1906 are shown in the following statement:

Articles.	Value.	Articles.	Value.
Corkwood.....	\$126,580	Tartar.....	\$42,595
Curios, household effects, carpets, etc.	5,419	Vegetable fiber.....	50,297
Distilled essences.....	8,559	Marble.....	5,685
Goatskins.....	279,237	Other articles.....	2,908
Iron ore.....	55,403	Total.....	634,488
Olive oil for manufacturing purposes.	55,129		
Salted sardines.....	2,781		

The total value of imports into and exports from Algeria during the past three years were as follows:

	1904.	1905.	1906.
Imports.....	\$76,029,600	\$81,181,200	\$82,300,000
Exports.....	56,863,400	49,137,000	59,160,600

Work in the direction of harbor development is going on steadily along the coast. At Oran the improvements recently begun will cost \$6,000,000 and will probably take eight or nine years to complete; but it is expected that by the end of the present year quays more than half a mile in length, with over 2,000,000 square feet of surface, will be opened up. A dry dock will shortly be constructed 220 meters (1 meter = 39.37 inches) long, 22 meters wide, and with a depth of 12 meters at the entrance. At Nemours, near the frontier of Morocco, piers are to be constructed at a cost of some \$1,800,000. At Djidjelli the works are advancing to completion and will make this an important port for the shipment of corkwood and ores. At Bougie and at Philippeville important extensions are projected, but details are not yet forthcoming.

COTTON CULTIVATION AND MINING.

Experiments in cotton cultivation have been going on in many districts and appear to be carefully conducted. The results have in many cases been satisfactory, the quality of the cotton having been remarkably good, but the extent of the sections in which the fiber can be produced is so small that it is safe to say that however valuable the culture may be as an additional crop for the colonists, cotton growing in Algeria will never become an important factor in the world's production.

A very remarkable development is going on in mining. Some of the zinc and lead mines opened last year have been exceedingly successful, and the shares have doubled and in some instances more than quadrupled in value. Mines of mercury have been commenced this year and are said to promise well. A feature in this department is the resumption of shipments of iron ore to the United States. About 15,000 tons have been shipped from Beni-Saf, and very large shipments are announced for the present year. A concession has been

given for a sulphur mine near Guelma, and work has just begun. The extraction of phosphate rock in Algeria has exceeded that of 1905, but in Tunis the output has been very much more important.

Work is to be begun this year on about 400 miles of road. This is quite independent of the work on the roads toward the Sahara, as to which reports have already been submitted. The expenditure is to be covered by a colonial loan of \$30,000,000. The interest is to be paid from the proceeds of the recently imposed tax on tobacco, which is yielding more than the revenue it was expected to give.

MOROCCO.

AMERICAN TRADE INTERESTS.

LACK OF ADVANCEMENT—CONDITIONS MUST BE IMPROVED.

Consul-General Hoffman Philip writes from Tangier on the apparent lack of satisfactory American trade advancement in Morocco, and states that the mere furnishing of lists of merchants and commercial information of a general nature is not in itself sufficient for a steady development of American interests in the country. The consul-general continues:

Among the more important merchants of Morocco engaged in foreign trade, among whom there are at present no Americans, there seems to exist a feeling of entire indifference in regard to American trade and productions, of the methods and advantages of which they demonstrate not only great ignorance, but doubt. Many reasons contribute to the continuance of this regrettable state of affairs, among which is the entire lack of any direct communication between the United States and Morocco. Great efforts are being made by the various European countries to increase their respective trade relations with Morocco, and all tangible inducements possible are offered by European merchants, in most cases actively supported by their governments, to firmly establish their commerce. These governments send special commercial experts to study the conditions, boards of trade send committees for like purpose, and the majority of private European firms send their representatives with full lines of samples, both for the purpose of gaining practical knowledge of the conditions and to obtain exact details as to the articles most in favor among the natives and other population.

Under such circumstances it is easy to comprehend the difficulties opposed to the advancement of American trade interests when such drawbacks as lack of direct communication, an absence of any degree of business confidence, misunderstanding arising from the constantly fluctuating exchange, and the continual absence of any commercial representatives whatever from the United States, are considered.

The import trade of Morocco has a most valuable future and is well worth the serious participation of our manufacturers. In order to take proper advantage of the opportunities afforded to this market American exporters will be of necessity dependent upon their own resources; very little assistance can be depended upon from the foreign merchants established here.

OPPORTUNITY FOR AMERICAN ARTESIAN-WELL DRILLERS.

Consul-General Philip, reporting further, says that Morocco offers, at the present time, what appears to be an exceedingly desirable field for the advent of one or more American artesian-well boring plants, concerning which he writes:

I would earnestly direct the immediate attention to this fact of those firms in the United States interested in undertakings of this description. I believe that plentiful supplies of water could be reached in almost every part of this country, were the proper means at hand for the purpose. There are a sufficient number of persons desiring artesian wells in the neighborhood of Tangier alone to amply justify the importation of a small American artesian-well plant at once, should the work achieve a degree of success of which there appears no reason to doubt.

There are at present a number of American windmill pumps in use here, and there is undoubtedly a much larger field for these, if properly introduced; but the method of well digging remains the same as for centuries past throughout the entire land, is expensive, and, in perhaps the majority of cases, unsuccessful. As a result the greater part of the wells found are surface wells, and reliance is placed upon the annual rainfall for supply. This rainfall, which generally averages from 26 to 32 inches, falling in the four winter months, sometimes comes far below these figures, and a water famine is the inevitable outcome.

It appears likely that such will be the case during the summer of 1907, as the rainfall up to March 23 was far below the average, and not much additional can be looked for after March. Should an American artesian-well plant be prepared to undertake work and make a successful beginning at a reasonable cost to the investor this would create an opening of value to American interests. A high foreign official at Fez informed me that the Sultan of Morocco would be exceedingly interested to learn more of American artesian-well methods, and I suggest the advisability of this office being furnished with estimates and descriptive literature on this subject by those interested in the foreign extension of their business interests.

Lest there be some misunderstanding, it is well to state that Morocco is a fertile agricultural country, the productive capabilities of which have never yet been properly developed. The large native population is occupied principally in primitive agricultural and grazing pursuits. Several large rivers intersect Morocco and springs are abundant. In certain districts there are, however, large areas having a deep substratum of black clay, which might present difficulties for the artesian-well borer, but of this I am not prepared to speak at this time.

 EGYPT.

ADVERTISING METHODS.

ITS NECESSITY AND THE BEST MEANS OF DOING IT.

An attaché to the Belgian consul in Alexandria has made a report on the methods of advertising in Egypt, in which he says:

Anyone desiring to push a new article on the Egyptian market or to compete successfully with a commodity already in demand must inevitably advertise.

Advertising in Egyptian newspapers does not, as a rule, produce any results commensurate with the cost thereof. There are no newspapers circulating among both the European and native communities, and a perusal of some of the local sheets reveals the fact that the methods of advertising which obtain in the Arabic papers differ considerably from those noticed in the European press. Under these circumstances, it is advisable to make use of posters, and for some years past displays of these proclaiming the merits of various wines, foods, jams, mineral waters, patent medicines, etc., have been noticeable in many inland towns as well as in Alexandria and Cairo. The most garish forms of posters are common enough, but some are really artistic. It is advisable to have them printed in Arabic as well as in the language of the country from which the article advertised emanates.

Directories, such as "L'Indicateur égyptien" (Alexandria) and the "Egyptian Directory," are published yearly, and many large firms of importers advertise in these. Another form of advertising which gives good results, but which should only be employed if it can be done in a way likely to attract clients, is the distribution of catalogues and price lists, printed in Arabic as well as in English or French. This system is specially applicable to goods such as sanitary appliances, domestic utensils of china or enamel, steam engines and motors of all kinds, agricultural machinery and implements, pumps, portable railways, etc.

SOUTH AFRICA.

GROWING THE CALABASH.

METHODS OF CULTURE EMPLOYED IN SOUTH AFRICA.

In answer to an inquiry made by a New Jersey civil engineer, Consul-General Julius G. Jay transmits the following report, prepared for him by the agricultural department at Cape Colony:

A medium light loam or even a sandy soil is best for the successful growing of the pipe calabash. The growing season will vary with localities from four to five months, and the condition under which it grows may be best described as semitropical, and it is usually found alongside tobacco, sweet potatoes, and the like. It is characteristically a creeper, but occasionally rises into hedges or shrubs, growing as a climber. It requires abundant sunshine and a warm soil and aspect. It is usually found in vegetable gardens or similar fertile or at least well-manured spots. Stable manure is commonly used.

In ripening the stalks of the gourd shrivel. The gourds are then collected and left on the bare ground in the sun till quite yellow and hard. In polishing and making into pipes the aim seems to be to avoid breaking through the skins. In some places upright stakes are put round the gourds so as to assist the natural bend of the stem, but elsewhere this is left to nature. It is highly probable that this calabash will be found to do best only in warm climates and on naturally fertile soils. With us it is grown entirely under irrigation, but in its later stages it requires no water. [Samples of the pipe calabash in its natural and finished forms have been received at the Bureau of Manufactures, where they may be seen by persons interested.]

OCEANIA.

NEW ZEALAND.

DEVELOPMENT OF ISLANDS.

THE CHRISTCHURCH EXPOSITION—FEW AMERICAN EXHIBITORS.

Writing from Christchurch, New Zealand, March 1, Special Agent Harry R Burrill furnishes interesting facts about the international exposition held in that city. He says:

The international exhibition at Christchurch, New Zealand, was a weighty undertaking for a colony with less than 1,000,000 population, scattered over a few small but fertile islands which are surrounded by a mighty expanse of water and accessible only by ocean-going ships. To its promoters the cost of the exposition was of small consequence in comparison with its usefulness in bringing New Zealand and her splendid resources to the attention of the world. The project could not be satisfactorily handled without incurring large expense, but no difficulty was experienced in financing the scheme and the results accomplished have apparently amply justified the expenditures.

Through the exhibition a knowledge of the resources, developed and undeveloped, the commerce, and the trade requirements and possibilities of New Zealand has become widely disseminated, and the manufacturers and exporters of foreign countries are now in a far better position more successfully to prosecute their business with the colony. The exhibits of New Zealand produce have unquestionably stimulated an interest in the raw products of the island colony that will be far-reaching and beneficial in results both at home and abroad. In a word, the exhibition has been a success and the people of New Zealand are to be congratulated on their creditable showing.

The exhibition buildings cover an area of approximately 14 acres and present an imposing appearance. The style of architecture adopted is the French Renaissance, and the use of stuccoline, which is snow white, as an exterior and interior finish, has added much to the attractiveness of the structures.

The buildings have been constructed with a view to subsequent demolition, and most of the material may be used again with a minimum amount of waste.

ABSENCE OF AMERICAN EXHIBITS.

The majority of foreign manufacturers are represented at the exhibition through their Australasian agents, although several have reserved space in their own name. These exhibits are especially interesting and attractive and serve to make the scarcity of American-made goods all the more noticeable. In this profusion of British, continental, Australian, oriental, and colonial wares may be found here and there an American exhibit looking somewhat lonesome and discouraged. A few items cover the list—all creditable exhibits—but they fail signally as object lessons for the Christchurch visitors. To them the American representation at the exposition conveys no idea of the diversity, usefulness, and desirability of our manufactures.

From a national view point it is a failure, although the scattered individual exhibits from the United States have created a most favorable impression. Among the exhibitors of American goods may be mentioned A. Abelson, optical goods; Blashki, cigars; Colonial Oil Company; correspondence schools of Pennsylvania; Fairbanks Company, New York; Page Davis School of Advertising, Chicago; Rider Ericsson Engine Company, New York; F. Shipman, automatic machines, Chicago; Singer Manufacturing Company; Standard Paint Company, New York; Skelton, Frostick & Co. (Limited), shoe importers, Christchurch; National Cash Register.

CANADIAN ACTIVITY.

In marked contrast to the meager representation of American goods is the Canadian court, in charge of competent government commissioners, who afford the visitor every facility for a thorough examination of this really creditable exhibit. No expense has been spared to fit up the space assigned to the Dominion government in an attractive and artistic manner, and it has served and is serving as an admirable and effective advertisement of Canadian manufactures. The Canadian government could have devised no plan better calculated to forward their efforts toward trade expansion with New Zealand than their interesting and instructive exhibit at Christchurch.

That there is an undercurrent of dissatisfaction among the exposition officials over the failure of the United States to participate more extensively at the exhibition is much in evidence, but it is quite as apparent that those who fully understand the situation are not disposed harshly to criticise the American Government or manufacturers.

PROVINCE OF CANTERBURY.

At Christchurch over 1,000,000 visitors can testify to a cordial welcome, courteous treatment, and reasonable charges, which speak volumes for that beautiful little city. In no part of New Zealand are the means of communication better than in the Canterbury province, of which Christchurch is the capital. The natural facilities of the country have been abundantly supplemented by railways and good roads. Lyttleton, the chief port, is connected by rail with Christchurch, and the main trunk line runs south to Dunedin, giving the two cities a daily express service each way.

As shown by the exhibits, the principal crops grown in Canterbury are wheat, oats, barley, turnips, rape, clover, and grass seed, while rye, peas, beans, mangolds, beets, carrots, onions, and potatoes are also largely produced. Wheat is the principal crop of the district. The area placed under crop for thrashing was about 200,000 acres, nearly three-fourths of the total wheat area of the colony. The average yield is 35 bushels to the acre and the total yield is nearly 7,000,000 bushels. Of a total area of the oat crop in the colony, two-fifths are grown in Canterbury, with an average of approximately 45 bushels to the acre. The pastoral and agricultural lands provide grazing and fodder for large numbers of sheep, cattle, horses, and other stock. In the province there are approximately 5,000,000 sheep, 60,000 horses, and 140,000 cattle.

SHEEP BREEDING.

Canterbury is famed for the classes and excellent quality of its sheep. On the mountains and higher lands the Merino type still pre-

dominates. On the richer low-lying ranges, hills, and plains the prevailing types are crosses between the Merino, Leicester, Lincoln, Romney Marsh, and other breeds. The development of the frozen-meat trade has given a great impetus to sheep breeding. The bulk of the best meat exported from New Zealand is supplied by Canterbury and it commands the highest price on the foreign market. The frozen meat exported from Canterbury each year is valued at approximately \$5,000,000, and the value of the wool in round numbers is \$7,500,000.

The city of Christchurch is typically English, but its business enterprise has evidently not suffered because of its conservatism. Through the exhibition Christchurch has made history in the last six months, and, in common with the whole colony, she shares the substantial benefits arising from the world's inspection of New Zealand products.

A VALUABLE TRADE.

The trade of New Zealand is a valuable one now, and it will unquestionably show a gratifying annual increase. The market demands manufactured articles, and for that market the world is competing. The tariff discrimination in the case of some American goods is a serious handicap, as the margin of profit is small, while the cost of production and the transportation expenses of British-made goods to New Zealand ports differ but little from those of similar articles exported from the United States. The cost of American products landed in New Zealand is therefore often more than the cost of British goods, and in a country where English and American importations dominate, this is the main point to be considered. For these reasons, and in the interests of the maintenance and expansion of the volume of exports from the United States to New Zealand, the attitude of the colony toward a slight reduction of the tariff is pointed out.

MAIL SERVICE WITH AMERICA.

Sir Joseph Ward, the Prime Minister, has frequently expressed himself as favorable to the San Francisco mail service as the best and most expeditious route to be had between New Zealand and England, provided ships are run on schedule time. He deprecates the irregularity which has recently manifested itself, but expresses the hope that improved conditions may soon prevail. In the meantime no agreement on the renewal of the mail contract with the Oceanic Steamship Company can be reached. He wishes it understood, however, that he regards the mail connection across the American Continent as valuable for New Zealand, and one that should not be set aside if by any possibility such action can be avoided.

The prime minister desires a Vancouver and San Francisco mail service so alternating as to permit of the receipt and dispatch of mails to and from the old country at comparatively short intervals. He is keenly alive to the necessity of the extension of New Zealand's external connections, and believes that, with the assistance of Canada and Australia, a Canadian mail service leaving every three weeks may be inaugurated. If this arrangement be consummated it will result in a ten days' mail and passenger service between New Zealand ports and the Pacific coast. At the conference of Colonial Premiers, held in London in May, Sir Joseph Ward discussed this question with Sir Wilfred Laurier, of Canada, and is hopeful that

the discussion may lead to the subsequent establishment of the mail connection.

He believes also that the Canadian Premier will be prepared to extend the hand of commercial fellowship to New Zealand to the mutual benefit of both countries. It is believed in New Zealand that by giving a 10 per cent preference to Canada it would not only be an appropriate recognition of a British possession, but that it would materially facilitate the interchange of the manufactures of Canada and the raw products of New Zealand.

PROPOSED REDUCTION IN POSTAL AND TARIFF RATES.

Before his departure for the London conference Sir Joseph Ward spoke hopefully of the prospects for universal penny (2-cent) postage. He said that he trusted the people of the Continent of Europe, and the people of America would appreciate the desirability of cheapening postage quite as fully as the Canadians. At the Premiers' Conference he intends to make, on behalf of New Zealand, a motion in favor of universal penny postage, and, though this may be out of order, it will be of benefit, for it will bring the subject prominently before the statesmen of the United Kingdom. He trusts that France and England, or America and England—for if any two of these countries take such a step the others will probably follow in their wake—will come to a mutual understanding regarding cheap postage. He expects to point out to the Chancellor of the Exchequer how successful penny postage has proved in New Zealand, and how it has been approved by the hard-headed commercial men of the colony.

The Prime Minister also referred to the Government programme for the next session of Parliament, which contemplates the acquisition of native lands, a comprehensive bill dealing with the land question in general, endowment legislation, which includes old-age pensions, charitable aid, and other similar propositions; and a revision of the tariff. In regard to the tariff, Sir Joseph Ward declared that the primary object would be to remove the duties from the necessities of life.

It is also intended to alter the schedules in the direction of permitting raw material required for use in manufactures to come in free of duty. In so doing, he asserted, the manufacturers of New Zealand would be far better able to compete with the manufacturers of foreign countries. The alterations contemplated in the tariff would not, generally speaking, be along the lines of extreme protection, but rather in the nature of a readjustment that would inure to the benefit of home industries.

AUSTRALIA.

ADULTERATED WHITE LEAD.

COMMONWEALTH WILL PROBABLY RAISE THE IMPORT DUTY.

Consul-General J. P. Bray, of Melbourne, makes the following report on the importation of white lead into Australia:

The white lead used in Australia, imported from England and Germany in quantities of about \$1,500,000 worth annually, is stated by the newspapers here to be a heavily adulterated article, ranging

from 20 to 50 per cent, the adulterants being baryta, French chalk, china clays, and similar substances.

It is anticipated that the Commonwealth government will next session raise the import duty of about \$10 per ton on white lead to \$15 or \$20, to enable a local company to resume operations. It closed down about twelve months ago in consequence, it is claimed, of heavy imports from England and Germany of a less pure article at a much lower price than was formerly shipped. The local product is said to have been an absolutely pure white lead by a patent chemical process entailing considerable less time than the "stack" or "old Dutch" method.

It is reliably stated that the product of this process has stood the most severe tests against the best English and German and proved the most lasting; also that it was used by the State railways, by the metropolitan board of works, which controls the sewerage system of Melbourne, with the best results, and both the Commonwealth and State public works departments, after testing, recommended its future use.

TRADE STATISTICS.

COMPARISON OF IMPORTS AND EXPORTS FOR A TERM OF YEARS.

The foreign trade of the Australian commonwealth for the past seventeen years is reviewed by the London Statist, which publishes the following table:

Year.	Merchandise.		Bullion and specie.	
	Imports.	Exports.	Imports.	Exports.
1906.....	\$207,312,900	\$257,487,850	\$10,706,300	\$82,243,850
1905.....	179,087,200	219,479,150	7,999,750	56,938,000
1904.....	174,220,700	193,200,000	5,899,800	86,662,370
1903.....	177,627,250	141,615,150	6,326,450	92,960,150
1902.....	193,200,000	140,155,300	4,866,500	73,484,150
1901.....	201,959,750	168,880,000	4,779,850	73,484,150
1900.....	195,633,800	153,294,750	5,899,800	70,564,250
1899.....	162,541,000	174,220,700	4,779,850	62,291,200
1898.....	150,861,500	126,529,000	2,483,250	69,104,800
1897.....	153,781,400	116,795,000	1,946,600	67,157,700
1896.....	141,615,150	123,609,000	2,483,250	36,498,750
1895.....	110,469,550	131,882,150	2,483,250	31,632,250
1894.....	104,143,000	124,582,400	2,483,250	31,632,250
1893.....	102,196,500	133,342,000	13,189,550	28,225,700
1892.....	143,561,750	139,668,000	2,919,900	22,386,900
1891.....	180,060,500	145,021,700	3,893,200	30,658,960
1890.....	167,407,600	117,769,300	3,406,550	24,819,150

NORTH AMERICA.

DOMINION OF CANADA.

PROVINCE OF QUEBEC.

AMERICAN TRADE POSSIBILITIES THEREIN.

The following information concerning Three Rivers and the entire province of Quebec is furnished by Consul James H. Worman:

The result achieved thus far in efforts put forth to build up American trade here offers every encouragement. One of the largest wholesale hardware houses in the district was recommended to American manufacturers and jobbers as an energetic firm known to have the best of business connections in the French Canadian trade. From a small beginning it has come to make large direct imports, and there are innumerable lines of American goods replacing those formerly bought in the home market or from English or German houses. There is a considerable wholesale trade in dry goods and Yankee notions centering in Three Rivers. [The name of the most important firm which is in touch with most of the French Canadian retailers in their line is on file at the Bureau of Manufactures. This house is a large buyer in the United States.] There is every reason for much increase in imports of this class of goods if American manufacturers will visit the rich trade area between Montreal and Quebec, on both shores of the St. Lawrence, and personally interest the dealers in American-made goods. The American watch and jewelry trade has the best of openings here. New Haven clocks are sold in quantities, and American watches have taken the field from Swiss and German makes.

IMPORTS FROM FRANCE AND GERMANY.

Next to those from the United States, the heaviest imports into the district are from France. The people of the province speak mainly French and naturally lean toward everything that is French. Even the goods manufactured on Canadian soil are often sold as French goods. Gloves manufactured in this city bear a Parisian name, except men's very heavy dress gloves, to which an English firm name is given. Dress goods, including both silk and woolen, fine hosiery, silk underwear, embroidery, books, jewelry, curtains, and shawls are the principal imports from France.

Germany supplies a large quantity and variety of goods, and a very large share of it must come via England. Besides toys, china ware is largely of German origin, and there are many imitations of the best-known English brands. Razors, table cutlery, and many of the edged tools are of German origin, and these goods are displayed here in a most attractive manner, evidencing a systematic effort in advertising. Electrical supplies are offered for sale at less than prices current for Canadian and American goods, in the face of the surtax on German-made goods.

EXPORTS TO THE UNITED STATES.

The following statement of the value of the exports to the United States, declared at the Three Rivers consulate and its agencies, for the calendar year 1906, shows a total of \$1,748,504, an increase of \$600,000 over 1905.

Articles.	Three Rivers.	Victoria-ville.	Grand Mère. ^a	Total.
Aluminum.....	\$116,900		\$48,480	\$165,380
Asbestos.....		\$214,480		214,480
Calfskins.....	897	65,665		65,972
Deals.....	8,685	8,472		12,157
Hides.....		46,822		46,822
Laths.....	2,437	2,929		5,366
Lumber.....	473,742	40,685	3,806	518,188
Mineral water.....	3,618			3,618
Paper.....	2,085		5,744	7,829
Pig iron.....	25,308			25,308
Pulp wood.....	318,740	165,567	73,922	558,229
Shingles.....		8,675		8,675
Wood pulp.....	59,431			59,431
All other.....	31,003	22,811	8,160	61,974
Total.....	1,037,266	571,056	140,182	1,748,504

^a For six months only, the agency having been closed in June, 1906, the exports, therefore, after that date being included in the returns from Three Rivers.

It may be safely estimated that all the other foreign exports of Three Rivers by rail were not far from \$3,000,000 in value.

The trade openings in this province are the very best, if properly availed of. The reason why we have no larger imports at present to record from the United States is due to a want of organization and systematic effort on the part of American manufacturers and exporters.

On account of the national policy of the Dominion tending to a deflection of Canada's trade to the mother country, there is need of greater personal efforts on the part of the American industrial and financial world to control what trade we have hitherto acquired in the Dominion and to insure a proportionate increase of the heavier traffic.

AMERICAN SUPPLIES—HIGH TARIFF NO BARRIER TO IMPORTS.

Systematic and well organized immigration schemes on the part of the Dominion and the provincial governments and the different railways, notably the Canadian Pacific, as well as some church organizations and Canadian and English philanthropists, will bring to this shore an unusually large number of immigrants this year, and as most of these are booked as settlers, there will be a larger demand for all kinds of supplies, notably agricultural implements and machinery, these immigrants coming as proposed settlers and cultivators of land hitherto untilled. The prosperity of Canada, the inauguration of ways and means to develop by the building of numerous new railways and arteries the mineral resources of the Dominion, the successful operation of all kinds of mines, as well as steel works, shipbuilding concerns, and the unusual prosperity of manufacturers generally, is giving an impetus to trade here that must greatly increase the need of imports during the year 1907. It is to be regretted that many American manufacturers are coming across to establish branch factories. If American manufacturers would organize and put forth efforts unitedly to obtain the markets, there would be no need of establishing

branch factories in Cahada. Even in the small towns, wherever they are properly represented, the American goods have the preference. In this city, where a large shoe factory is established, working on approved modern methods, and giving attention to style and finish, American shoes hold the market and are gaining in sales. The same is equally true of other lines of American manufactured goods, such as hardware, cutlery, farming tools and implements, harnesses, wagons, sleighs, kitchen utensils, musical instruments, drugs and chemicals, etc.

COMMERCIAL ADVANTAGES.

The high tariff wall proves no barrier to the importation of American goods. In most lines of goods Americans can still compete successfully: First, because of the close proximity and consequent small expenditure for transportation. Second, because of the promptness with which demands can be met. Third, because of the large facilities for manufacturing for which our country is notable.

A very good illustration of American ability to compete in the face of a high duty is offered by the success of the American typewriting machine in Canada. An American concern established on the border of Lake Champlain manufactures also in Canada both sewing machines and typewriters. The typewriter is of a cheaper grade and goes under another name than in the United States. The enterprise has been fairly successful, and yet in no way does its success compare with that achieved by the imported American typewriters. In Three Rivers, where none of the American typewriter manufacturing concerns are represented, a large number of American machines are nevertheless used. They are preferred, although they cost twice as much as the Canadian typewriter. The commercial schools now starting in many towns of this province will naturally create a larger demand for typewriting machines, and it is to be regretted that no systematic efforts have been made to obtain such trade in this Province.

In a recent report attention was called to the great improvements in dairying in this Province and the consequent opening for American separators and dairy supplies. The sale of over 100 machines is surely a pretty fair showing for this district.

American office furniture should find a very good market in this section of the Province. Recently a modern office building was erected in Three Rivers. An enterprising firm might place an entering wedge there that would bring big returns both here and in the adjoining towns to that branch of trade.

BOUNTIES FOR METALS.

GOVERNMENT ENCOURAGEMENT TO IRON AND STEEL MANUFACTURING.

Consul-General J. G. Foster writes from Ottawa that the Canadian government, with a view to the encouragement of the smelting of domestic iron ore by electricity and the manufacture of steel by electric process, has made special provision to the payment of bounties as follows:

Pig iron manufactured from ore, on the proportion from Canadian ore produced during the calendar years 1907, \$2.10 per ton; 1908, \$2.10; 1909, \$1.70, and 1910, 90 cents.

Pig iron manufactured from ore, on the proportion from foreign ore produced during the calendar years 1907, \$1.10 per ton; 1908, \$1.10; 1909, 70 cents, and 1910, 40 cents.

On puddled iron bars manufactured from pig iron made in Canada during the calendar years 1907, \$1.65 per ton; 1908, \$1.65; 1909, \$1.05, and 1910, 60 cents.

Rolled round wire rods not over three-eighths of an inch in diameter, manufactured in Canada from steel produced in Canada from ingredients of which not less than 50 per cent of the weight thereof consists of pig iron made in Canada, when sold to wire manufacturers for use or when used in making wire in their own factories in Canada, on such wire rods made after December 31, 1906, \$6 per ton; steel manufactured from ingredients of which not less than 50 per cent of the weight thereof consists of pig iron made in Canada, on such ingots made during the calendar years 1907, \$1.65 per ton; 1908, \$1.65; 1909, \$1.05, and 1910, 60 cents. No bounty shall be paid on iron or steel made in Canada by the electric process after December 31, 1908.

On pig iron and steel manufactured in Canada, for consumption therein, when such pig iron and steel is the product of Canadian iron ores smelted in Canada by electricity, viz, on pig iron manufactured from Canadian ore by the process of electricity smelting during the calendar years 1909, \$2.10 per ton; 1910, \$2.10; 1911, \$1.70, and 1912, 90 cents.

On steel manufactured by electric process direct from Canadian ore, and on steel ingots manufactured by electric process from pig iron smelted in Canada by electricity from Canadian ore during the calendar years 1909, \$1.65 per ton; 1910, \$1.65; 1911, \$1.05, and 1912, 60 cents.

The bounty, as on pig iron, may be paid upon the molten iron from the ore which in the electric furnace enters into the manufacture of steel by the direct process, the weight of such iron to be ascertained from the weight of the steel so manufactured, but the bounty shall not be paid on steel ingots from which steel blooms and billets for exportation from Canada are manufactured.

NOVA SCOTIA.

BUSINESS OUTLOOK PROMISING—LOCAL INDUSTRIES.

Consul G. N. West writes from Sydney, Nova Scotia, that after an unusually severe winter, the ice forming in the harbor in January to a greater thickness than known for years, the port has prospects for a prosperous year. He continues:

The business prospects for the year are exceptionally good. Several new enterprises are to be started as soon as weather conditions will permit, notably the rolling mills for the production of various classes of railroad track supplies. To this enterprise Sydney has granted a bonus of \$50,000. A manufactory of brass goods, with a capital of \$100,000, is also to be started immediately, producing various classes of articles suitable for offices, car, plumbing, steam, and general use. A foundry and machine company has been formed, with a capital of \$100,000; also a tannery has been started in a small way, using acids for tanning. Other industries are all running full time, and during the winter made many improvements to their plants and mines.

Sydney and the surrounding towns have not in the past been manufacturing centers, only for iron and steel; but since the erection of the iron and steel plants various enterprises have been started, whose products are based on the material they can so readily procure from the iron and steel companies located here. The coal mines are still the principal employers of labor, as on the entire island of Cape Breton, with a population shown by the census of 1901 to be 97,605, there was employed in that industry about one-fifth of the total population, besides several hundred men that come from Newfound-

land for employment during the summer and fall seasons, and there are weekly arrivals of miners with their families from the United Kingdom. There was a scarcity of unskilled labor in this section of Nova Scotia during the past year, and present indications point to the same condition for 1907. The general prospects for a prosperous year for all classes of business bears evidence at the present time of being better than for several years past. Salesmen of wholesale houses state that they are booking large orders.

YUKON TERRITORY.

COMMERCIAL CONDITIONS IN THE KLONDIKE COUNTRY.

Vice-Consul G. C. Woodward sends from Dawson the following report on the trade of the Klondike for last year:

The total exports from the Yukon Territory to the United States for the year ending December 31, 1906, as appears from the records of this consulate, amounted to \$5,643,415. Of this amount, \$5,320,606 was gold dust and \$322,809 was merchandise; \$5,287,068 of the gold was Canadian and \$33,538 was American. Of the merchandise, \$228,915 was American goods returned—that is, goods that had been sold to merchants in Dawson by exporters in the United States and resold by them to merchants in Alaska. The balance of the merchandise exported was goods shipped to Dawson from different points in Canada and reshipped to Alaska.

The total exports invoiced through this consulate for the year ending December 31, 1905, from the Yukon Territory to the United States amounted to \$7,849,958, and was comprised as follows: American gold, \$75,801; American goods, \$404,971; Canadian gold, \$7,241,092; Canadian goods, \$128,094.

The dutiable imports of the Yukon Territory for the nine months ending March 31, 1906, amounted to \$950,976, of which \$669,805 was entered for consumption. The total tonnage of goods entering Dawson during the year ending December 31, 1906, via the Skagway route, was approximately 25,000 tons, of which 5,000 tons were in transit for Alaska. There was no tonnage of consequence leaving Dawson for the outside, via Skagway. The open season in this Territory—that is, that portion of the year in which these goods are received—is from June 15 to October 15. The total tonnage of goods during the same period entering Dawson, via Eagle (the lower river route), amounted approximately to 2,000 tons and the amount leaving Dawson via this route amounted approximately to 6,500 tons.

FURS AND HIDES.

The principal product of the Yukon Territory at the present time is gold. The other products worthy of mention are furs, timber, coal, copper and other minerals, and vegetables and hay. There is, of course, an abundance of fish and game, but not sufficient for exportation. The invoiced furs exported during the calendar year 1906 amounted to 1,520 skins of various kinds, their total value being \$7,296, as against 3,471 skins, amounting to \$25,281, for 1905. The largest item last year was 825 lynx, worth \$2,681, followed by 241 marten, worth \$2,169.

There are considerable marten, beaver, and mink skins used by the local furriers in the manufacture of garments. While the local cost of the labor is 100 to 200 per cent greater than on the outside, the advantage gained by those unable to judge the value of furs is in the satisfaction of knowing that the garment is made of the genuine article. The average price is \$15 or \$20 for some bearskins, and for good silver-fox skins anywhere from \$100 to \$300, while black-fox skins will range from \$300 to \$750; marten will range from \$3 to \$15.

There was also exported last year 1,613 beef hides, valued at \$3,226; 2,392 sheep pelts, valued at \$478, and 28 calf hides, valued at \$28.

OTHER MINERALS AND CROPS.

The entire production of coal, amounting to approximately 14,000 tons, is used locally. It as yet has not been successfully used in private houses, but is a fair grade of soft coal for locomotives, marine and stationary engines. The supply is used by some of the steamers of the White Pass and Yukon route, plying between Dawson and Whitehorse; by the Klondike Mines Railroad, running between here and Sulphur Creek, a distance of 30 miles, and by the local electric-light company, furnishing light for Dawson and Grand Forks, water for house supply and fire purposes in Dawson, and electrical power on Bonanza Creek. This coal sells retail for about \$16 per ton in Dawson, as against \$12 per cord for wood.

The principal timber growing in the Yukon Territory is spruce, birch, and cottonwood. The spruce is the only kind suitable for building purposes and lumber. While there is considerable development work being done on the copper properties in the southern part of the Yukon Territory, as yet the actual production for exportation has not commenced. There were some 200 tons of vegetables and 400 tons of hay grown in the territory during the year 1906. This output was good, considering the shortness of the summer season. The vegetables include potatoes, cabbage, turnips, carrots, beets, celery, etc. In quality the potatoes are improving each year. Heretofore they have been watery, and some difficulty has been experienced in keeping them, but some of the last year's crop were equal to those shipped in from the outside. Hotel keepers say that they had never used celery equal to that grown here.

COST OF LIVING AND THE WAGES PAID FOR LABOR.

Consul G. C. Cole, of Dawson, reports the cost of living and the wages paid for labor in the Yukon Territory as follows (retail prices):

Fuel and lumber:	
Coal, native, per ton.....	\$15.00 to 20.00
Wood, per cord.....	12.00 to 15.00
Spruce, native undressed, per M.....	45.00
Fir, imported undressed, per M.....	125.00
Oak, imported undressed, per M.....	400.00
Foodstuffs:	
Oats, per ton.....	80.00 to 120.00
Hay, native, per ton.....	60.00 to 80.00
Hay, imported, per ton.....	80.00 to 120.00
Beef, per pound.....	.25 to .50
Pork, per pound.....	.40 to .50
Ham, per pound.....	.35
Bacon, per pound.....	.35
Turkey, per pound.....	.50
Chicken, per pound.....	.50
Cheese, per pound.....	.40
Butter, per pound.....	.50
Lard, per pound.....	.20
Tea, per pound.....	.50 to .75
Coffee, per pound.....	.35 to .65

Foodstuffs—Continued.

Rice, per pound.....	\$0.08 to .10
Flour, per hundred.....	6.00
Potatoes, per hundred.....	8.00 to 14.00
Eggs, domestic, per dozen.....	2.00
Eggs, imported, per dozen.....	1.00
Milk, per quart.....	.85
Milk, canned, per case of 4 dozen.....	7.50
Canned vegetables, per case.....	4.00 to 8.50
Canned fruits, per case.....	6.00 to 8.50
Oranges, per box.....	12.50 to 25.00
Apples, per box.....	4.00 to 6.50
Boarding:	
Hotels, per day.....	3.00 to 6.00
Restaurants, per meal.....	.75 to 3.00
Board and room, per month.....	90.00 to 150.00
Horses:	
Cost of draft horses per span.....	1,000.00 to 1,800.00
Boarding horses per month....	60.00 to 100.00

The wages of mechanics, per day of ten hours, is \$10; common laborers, with board, \$4 to \$5; without board, \$6; draft teams, per day (two horses), \$25; clerks, per month, \$150 to \$300.

Everything consumed in the way of living costs from two to three times as much in this country as it does in the United States. There is no article sold for less than 25 cents, no matter how trivial, as there is no money in circulation of a lesser denomination than that amount. The cost of living will remain high so long as the means of getting supplies into the country remain as they are, and what is true of the Yukon territory is true of the Yukon Valley from the Alaskan line to the coast.

The only relief that we could suggest for these conditions is a trunk line railroad from the open sea into the heart of this great valley so rich in gold, copper, and other valuable minerals, to be in some way under the control of Government authority, so as to keep down excessive freight and passenger rates.

MANITOBA.

INCREASED CROPS, TRADE, AND RAILWAY CONSTRUCTION.

Consul Samuel H. Shank, of Winnipeg, furnishes the following report covering the commercial and industrial development of Manitoba and the opportunities for the increase of American trade therein:

The commercial conditions in this consular district during 1906 were most satisfactory. It is estimated that there were 1,500 more merchants engaged in business in 1906 than in 1905. The bank clearings in Winnipeg in 1906 amounted to \$504,585,914, an increase of 37 per cent. Building permits for the year amounted to \$12,625,950, an increase of 20 per cent. The Canadian Pacific Hotel at Winnipeg was completed at a cost of \$1,500,000. The railroad company will expend about \$3,000,000 in extensions and betterments during 1907.

SATISFACTORY TRADE CONDITIONS.

The trade in this district, as shown by the exports to the United States, has been satisfactory. The total shows only an increase of \$60,286 over 1905, but this is due partially to the establishment of the consulate at Calgary in June, 1906. The items showing the greatest increase are hides and lumber. The value of hides exported to the United States was \$693,680, an increase of \$283,027. Winnipeg is rapidly becoming an important hide market, and is now perhaps the third in Canada. The lumber exported was valued at \$134,829, an increase of \$127,189. The principal exports which show a decrease are furs, fish, and seneca root. The decrease in furs exported is due partly to the decline in price in the early part of the year and partly to the exportation through the Calgary district. The total amount of furs shipped in 1906 was valued at \$588,138, as against \$700,050 in 1905. The decline in price of seneca root made the business unprofitable, and in consequence there was a decrease in shipments of \$45,435, the total for the year being \$92,986.

The Dominion Government having extended the closed season reduced the catch of fish; the influx of immigrants has increased the home consumption, and these two causes account for the diminution

in exports. There were 187,502 immigrant arrivals, of which number 130,970 were settlers. The number of Americans settling here was 50,305. There were 46,532 land seekers and tourists who did not settle here. Most of these were from the United States.

The total imports from all countries into this district amounted to \$30,636,196. As it is impossible to get these statistics for each country, I can not tell what proportion of this trade was American.

The yield of grain in Manitoba in 1906 was the largest ever harvested in the province, viz: Wheat, 90,000,000 bushels; oats, 85,000,000 bushels, averaging 41 bushels per acre; barley, 20,000,000 bushels, averaging 31 bushels per acre, and flax, about 800,000 bushels. These four grains practically compose the crop of this district. The average price received by the farmer for wheat was 62 cents per bushel.

RAILWAY CONSTRUCTION—AMERICAN TRADE PROSPECTS.

The rapid development of this country is evidenced by the amount of railway constructed each year. The beginning of the construction of the Grand Trunk Pacific was witnessed in 1906, about 40 miles of track being laid. The Great Northern Railway Company constructed 150 miles of road, running two branch lines from the State of North Dakota to points in Manitoba. The Canadian Northern Railway Company built more than 200 miles of road. The long-discussed route to Hudson Bay was commenced and 60 miles of the line were completed. At the present time but 150 miles of this line will be built. The Canadian Pacific Railway Company built 430 miles of new track during the year. A part of this was the double track being laid between Winnipeg and Fort William.

Neither of the roads operating here has been able to handle its business in a satisfactory manner. It has been impossible for the companies to secure sufficient rolling stock to transport the freight.

The prospect of a large increase in all lines of trade during the coming year is very good. There seems to be no abatement in immigration and the consequent increased demand for articles of all kinds. The large number of American immigrants makes the sale of American goods comparatively easy. The well known high grade of American-made articles makes them salable even at a higher price than the domestic or other foreign-made article.

The tariff law recently passed reduced the duty on farming implements. This should result in a material increase in business in this line, as American implements have the preference here. The proximity of this market should make the development of American trade inexpensive and easy.

MEXICO.

EXPANDING FOREIGN TRADE.

LARGE INCREASE IN IMPORTS AND EXPORTS LAST YEAR.

The following statistics, covering the imports and exports of Mexico for the fiscal years 1905 and 1906, are taken from the annual report of Consul-General Alfred M. Gottschalk, of the City of Mexico.

The values are given in United States currency. The imports and exports by classes were as follows:

Classes.	1905.	1906.	Classes.	1905.	1906.
IMPORTS.			EXPORTS.		
Animals, living	\$7,060,278	\$8,160,641	Minerals, metals, etc	\$64,891,381	\$95,969,175
Vegetables, grain, plants, etc	15,152,598	16,243,280	Vegetables, fibers, coffee, rubber, etc.	29,419,982	31,838,211
Minerals, metals, etc	26,273,790	45,286,840	Animals and their products	5,231,549	5,838,266
Textiles and manufactures thereof	11,594,709	11,465,219	Manufactures: Cigars, sugar, flour, leather, etc	3,932,686	1,488,264
Chemical and pharmaceutical products	3,523,849	3,856,648	All other articles	367,587	396,211
Liquors of all sorts	3,527,543	3,608,688			
Paper and manufactures thereof	2,788,425	2,697,762	Total	108,843,185	135,027,127
Machinery, tools, etc.	11,176,606	10,228,528			
Vehicles	2,101,558	2,300,776			
Arms, ammunition, and explosives	2,815,572	2,052,874			
All other	2,731,188	3,988,094			
Total	88,746,071	109,884,235			

The exports of metals and minerals given in the foregoing table were composed of the following products:

Description.	1905.	1906.	Description.	1905.	1906.
PRECIOUS METALS.			BASE METALS AND MINERALS.		
Gold	\$14,124,216	\$15,784,497	Copper	\$14,842,108	\$14,270,637
Silver:			Lead	2,741,325	2,473,968
Bullion	26,400,980	32,889,464	Antimony	391,643	517,462
Specie, Mexican	946,146	24,736,170	Zinc	44,906	167,465
Other silver	5,283,649	4,823,608	All other	116,511	315,906
Total silver	32,630,775	62,449,242	Total base metals ..	18,136,387	17,745,437
Total precious metals	46,754,991	78,233,739	Grand total	64,891,378	95,979,176

The imports by countries were as follows:

Countries.	1905.	1906.	Countries.	1905.	1906.
United States	\$49,788,571	\$72,508,966	Austria-Hungary	\$600,126	\$579,461
Germany	10,184,813	10,365,649	Switzerland	416,392	423,238
United Kingdom	10,778,562	10,131,633	Netherlands	286,625	304,147
France	8,823,496	8,158,861	Canada	26,091	138,708
Spain	3,852,973	5,782,576	All other countries	1,671,997	1,589,708
Belgium	1,492,019	1,266,734	Total	88,746,071	109,884,235
Italy	824,406	634,575			

The exports to the United States amounted to \$92,633,006 in the fiscal year 1906, an increase of \$16,470,279 over the previous year; to Europe, \$39,742,508, an increase of \$14,590,022; to the West Indies, \$2,006,440, an increase of \$76,456; while exports in 1906 to Central America amounted to \$508,767; to South America, \$32,656, and to all other places \$86,270.

The amount of American investments in Mexico at the close of 1906 is conservatively estimated at \$750,000,000 gold, against \$500,-

000,000 five years ago. Investments have not been confined as formerly to a few leading enterprises, but are systematically distributed among all lines of activity in the Republic.

CIUDAD PORFIRIO DIAZ.

INCREASE IN IMPORTS AND EXPORTS OF A MEXICAN CITY.

The following report, covering the increased volume of the imports and exports of Ciudad Porfirio Diaz and the prosperous condition of its industries, is supplied by Consul Lewis A. Martin:

When the free zone was abolished in June, 1905, it was feared that the abolition would have a tendency materially to lessen the volume of trade conducted through this port. On the contrary, the trade has very materially increased—both imports and exports. The business prospects in the district were never more encouraging or the various industries more active, and there never was a time when the customs officials were handling more revenues from imports and exports.

The imports in 1906 amounted to \$8,130,794, an increase, as compared with those of 1905, of \$1,484,558, while the exports amounted to \$3,815,378, an increase of \$4,046,662 over those of 1905. The imports by articles, as far as they can be designated from the customs returns, were as follows:

Articles.	Value.	Articles.	Value.
Arms and explosives	\$156,228	Machinery—Continued.	
Boards and deals.....	800,225	All other	\$818,926
Cattle	106,694	Shoes	153,507
Chemicals	147,706	Stationery.....	74,018
Coal and coke	127,534	Vehicles:	
Cotton-seed oil.....	386,634	Railway cars	51,816
Horses	48,962	Carriages.....	135,869
Iron	127,205	All other	23,591
Ironware.....	242,537	Other merchandise	1,912,780
Machinery:		Total merchandise	5,955,794
Agricultural	68,634	Mexican gold coin	2,175,000
Electrical.....	111,827	Total imports.....	8,130,794
Sewing machines.....	91,044		
Locomotives	272,000		
Mining.....	98,115		

Of the foregoing \$7,334,810 worth was drawn from the United States, \$443,839 from Germany, \$194,455 from the United Kingdom, and \$138,490 from France. The exports for 1906 were made up as follows: Minerals, \$7,110,088; vegetables, \$930,861; animal products, \$738,434; all other products, \$35,995; total exports \$8,815,378, of which \$8,295,970 went to the United States.

A number of new manufacturing enterprises are being established in this section. One recently started here turns out brooms and mattresses from corn shucks, and from the refuse shucks they make daily 600 packages of cigarettes. A large building-brick factory is starting up at Sabinas with machinery from St. Louis, and will make 30,000 bricks daily. A sash and door factory has just been completed at Ciudad Porfirio Diaz. In fact, the city shows a steady growth, industrial enterprises and new business houses being a few of these evidences.

MAZATLAN'S TRADE.

GROWING COMMERCE ON THE WEST COAST.

The following statements by Consul Louis Kaiser show the imports into Mazatlan, a growing port on Mexico's west coast, by articles and countries, for the six months ended December 31, 1906:

Articles.	Value.	Articles.	Value.
Animals and animal products.....	\$69,542	Machinery.....	\$117,993
Vegetables and vegetable products.....	217,939	Vehicles.....	6,381
Minerals and mineral products.....	392,479	Arms and explosives.....	31,546
Textile fabrics.....	309,956	All other articles.....	85,883
Chemicals and chemical products.....	137,139		
Wines and liquors.....	68,073	Total.....	1,490,342
Paper and stationery.....	53,411		

The sources of the foregoing imports were: United States, \$616,090; Germany, \$349,527; United Kingdom, \$338,060; France, \$80,563; Spain, \$17,437; and all other countries, \$88,665.

The principal exports from Mazatlan to the United States during the six months ended December 31, 1906, were the following minerals: Bullion, gold, \$387,902; silver, \$605,667. Concentrates, gold, \$32,908; silver, \$45,630. Ore, silver, \$65,102; gold, \$17,576; lead and copper, \$6,177. Precipitates, silver, \$122,226; gold, \$39,133; zinc, \$4,061; and sulphides, \$25,000. These items comprised all but \$97,552 of the \$1,467,730 exports to the States for the six months.

CUBA.

TAILOR SHOP AND LAUNDRY NEEDED.

AMERICAN ESTABLISHMENTS WANTED IN SANTIAGO DE CUBA.

Vice-Consul H. M. Wolcott reports as follows concerning the opening which exists in Santiago de Cuba for an American tailoring establishment and men's furnishing store and steam laundry:

The tailoring business is all in the hands of Cubans and Spaniards. While they do conscientious work and there is no fault to be found with the materials used, they can not cut or design a suit according to American ideas. In consequence of this most all the Americans here, and many of the Cubans who have been in the United States and so come to appreciate American styles, buy their clothes either in Habana or in the United States.

The American colony is no doubt large enough to support a properly conducted establishment of this kind here, and it would only be a matter of a short time before a good patronage could be secured among the Cubans, who would not only appreciate good clothes cut after the American fashion, but have the money to pay for them. It would be only natural to expect that a good trade could be worked up among the American naval officers at the naval station in Guantanamo, who require a large number of linen and duck uniforms. There is nothing which might be termed an up-to-date men's furnishing store in Santiago de Cuba, and a good line of American haberdashery would sell here, without a doubt, among the Cubans as well as the Americans.

The native tailors charge \$1 gold for pressing a two-piece suit. As they apparently lack the necessary facilities or knowledge for

cleaning fine fabrics, this is never counted upon, and Americans have even been known to send a delicate piece of goods to the United States to be cleaned. This feature of a tailoring establishment should therefore prove remunerative.

SEVERAL CUBAN CITIES AFFORD EXCELLENT OPENINGS FOR LAUNDRIES.

Vice-Consul Wolcott deems it strange that the city of Santiago de Cuba, with an estimated population of over 50,000, and ships of the American Navy making frequent calls at the port, is without an up-to-date American steam laundry. He reports the situation as follows:

It would be only natural to expect that a well-equipped steam laundry properly managed would be a paying investment in this city. The only drawback has been the inadequate water supply, but now that the new aqueduct is completed and it is expected that the pipe line will be laid by July next, after which there will be an abundant water supply, there appears to be no further reason why a steam laundry would not succeed here.

Chinese are at present doing some of the work, and the rest is mostly done by native women. The tariff for laundry work is generally somewhat higher than the prevailing rates in the United States, and naturally, with the primitive methods employed, the work is not nearly as satisfactory.

As far as I know, the same conditions prevail in the city of Guantanamo, which has an estimated population of over 15,000, besides the large United States naval station which is in course of construction there, where a large number of American ships assemble for several months every winter for their annual maneuvers and target practice. This source in itself would undoubtedly pay for the establishment of a steam laundry there.

BRITISH HONDURAS.

IMPORTS LAST YEAR.

THE UNITED STATES SUPPLIES OVER HALF OF THE COLONY'S PURCHASES.

The following statistics concerning the imports into British Honduras in 1906 are furnished by Consul William L. Avery, of Belize:

The imports last year aggregated \$2,050,923, of which the United States furnished \$1,122,820. The imports from other countries were as follows: United Kingdom, \$587,113; Mexico, \$197,416; Honduras, \$70,487; Germany, \$34,820; France, \$16,126; Canada, \$7,356; Spain, \$6,531; all other, \$8,654. The imports from the United States were:

Articles.	Value.	Articles.	Value.	Articles.	Value.
Cotton manufactures.....	\$123,255	Rope and twine.....	\$9,392	Railway materials.....	\$12,008
Provisions.....	102,216	Clothing.....	9,243	Hay and oats.....	11,878
Flour.....	82,232	Refined sugar.....	8,310	Oil for launches.....	6,379
Beef and pork.....	79,827	Vegetables.....	7,850	Furniture.....	6,226
Boots and shoes.....	76,843	Coffee.....	7,088	Tanks and vats.....	6,088
Machinery.....	43,543	Bacon and hams.....	22,492	Indian corn.....	5,027
Lumber, rough and dressed.....	41,370	Drugs and chemicals.....	21,891	Salt fish.....	5,003
Hardware and cutlery.....	31,686	Butter.....	21,196	All other articles.....	315,078
Beer and cider.....	10,778	Lard.....	16,807		
Cheese.....	10,801	Kerosene.....	15,527	Total.....	1,122,820
		Tobacco.....	12,756		

SOUTH AMERICA.

REPUBLIC OF BRAZIL.

PORTUGUESE TRADE ACTIVITY.

THE LISBON GOVERNMENT AIDS IN ESTABLISHING A COMMERCIAL MUSEUM.

In calling attention to the permanent exposition of Portuguese products recently established at Rio de Janeiro under the combined commercial and Government authority of Lisbon, Consul-General G. E. Anderson writes as follows:

The exposition was opened on March 20 with considerable display, being inaugurated in Brazilian-Portuguese style with a collation, speech making, and entertainment, attended by the Minister of Fazenda and other Brazilian authorities and by a large number of representatives of Rio de Janeiro business circles. Years ago there was established in Rio de Janeiro the "Lyceu Litterario Portuguez," a school for the free instruction of certain classes of Brazilian people in the Portuguese language and literature. The building which houses this school is situated at the foot of the "Avenida Central," the large fine avenue which has been constructed in Rio de Janeiro within the past two years and which is now the most prominent feature of the municipality. In this building, thus centrally and prominently located, the exposition is housed. It occupies the whole of the second floor of this very large building. From the windows of this floor large flags of all nations are hung and the exposition is advertised in other ways. Altogether few business men in Rio de Janeiro or visiting the city could fail to take notice of the concern.

The exact commercial status and support of the exposition is not generally explained here, but it seems that in Portugal certain organizations of business men are given official connection and authority. The Ministry of Public Works, Commerce, and Industry in Lisbon has within it a Direction General or Bureau of Agriculture. Under this there is an organization of Portuguese mercantile representatives constituting the central market of agricultural products, and as a working representative of this semiofficial commercial organization there is a technical commissioner in charge of foreign markets. The exposition in Rio de Janeiro is under this authority. Its support comes from a 5 per cent commission charged by the exposition on all goods sold, for the exposition organization takes orders for the goods displayed. What the guaranty from the home authority is and what the expenses of the exposition are can not be learned here.

CHARACTER OF ARTICLES DISPLAYED.

At present the exposition includes divisions as follows: Works of art; wines, liqueurs, champagnes, vinegars and wine products, olive oils, spirits, mineral waters, cork and cork products, dried and prepared fruits, dried vegetables, cheeses, salt, preserved meats and fish; preserved fruits, vegetables, etc.; photography, lithographing, ceramics, shoes, and miscellaneous.

In some lines the divisions are quite extensive, especially in wines and food products. In art goods there are good examples of the best work in Portuguese oil and water colors, drawing, pastel, and black and white. There are some good examples of modern sculpture and of pottery. In the line of ceramics generally there is a first-class display of tiles and similar work. The display of shoes includes goods of Portuguese style almost exclusively and is neither extensive nor impressive. The display of wines and wine products is the most extensive of the exposition, and probably represents the most profitable feature. In the line of preserved fish of several varieties and in the display of preserved fruits there is a very attractive display and the goods seem to be popular. In nearly all of the food products there is more or less catering to Brazilian tastes, the connection between Portugal and Brazil in racial ties being especially prominent in such trade. In olives and olive oils and cork goods there is a very attractive display. The entire exposition is well presented, attractively arranged and kept, and if it is not a success it will be through no lack of attention.

FUTURE IMPORTANCE—INFORMATION BUREAU.

While the exposition, even if it is a great success, is not likely to be of particular importance to American interests, since the goods presented come into competition with no articles the United States is sending here at the present time, it is of importance as indicating what might be presented here by the United States at the present time with profit, and the idea in its relation to possible trade campaigns elsewhere is worth consideration.

In connection with the exposition of Portuguese products in this city it may be worth while to call attention to the museum established by the academy of commerce, an institution established for education along business and commercial lines. The principal object of the museum is to collect samples of all native raw materials of industrial utility, which are classed methodically with information as to their place of origin, means of using them, how and where they can be obtained, and cost. It is planned to form duplicate collections of such materials and forward them for display in similar museums in foreign cities for the purpose of disseminating abroad a knowledge of Brazilian products. In connection with the museum there has been organized an information bureau for the collection and spread of commercial information, and a bulletin is to be published later in this connection. [A catalogue of the exposition is filed for reference at the Bureau of Manufactures.]

TRADE-MARKS.

METHOD OF PROCEDURE IN REGISTRATION—THOROUGHLY PROTECTED.

Consul-General Anderson also writes that the registration and proper protection of trade-marks in Brazil are matters of more than ordinary moment to the Government, and the system devised therefor is elaborate, of which he furnishes the following résumé:

The registration of rights to a trade-mark is effected by the junta commercial or board of trade of the Federal district, corresponding to the District of Columbia, and by certain other juntas or boards of trade scattered through the Republic at the principal trade centers. These boards are unique in some respects and form a combination of official and unofficial authority in trade affairs

which is found in few countries. The laws of Brazil contemplate the registration of all business houses and corporations in the office of this board, and foreign corporations, to secure license to do business in Brazil, must, among other things, register with the junta commercial of Rio de Janeiro. The board or junta is composed of certain officers appointed by the Government.

With these officers are associated certain deputies or members chosen by the firms and corporations registered with the junta as doing business in the district covered by the organization. The junta, therefore, represents the business community directly to a certain extent and the Government not only in that its chief elements are appointed by the Government, but also in the fact that its decisions are given by law the effect of judicial decisions, and it is, in fact, a bureau of the department of justice and the interior in the Federal Government. The junta at Rio de Janeiro is the chief of such organizations in the country, and all registrations, decisions, and similar acts by the juntas at other points operating more or less under the authority and control of the several State governments are given general authority by filing with the junta at Rio de Janeiro.

SPECIFICATIONS OF REQUIREMENTS.

Trade-marks are registered and protected in Brazil through the mechanism of these juntas, notably the general one in Rio de Janeiro, or where the person wishing the mark registered is distant from Rio de Janeiro at the nearest junta commercial, through which the registration in Rio de Janeiro for national effect is had. To obtain the registration of a mark, the owner thereof or his legal representative acting by power of attorney must submit to the junta commercial a petition accompanied by three copies of the mark desired to be registered. Such copies must contain (1) a description of what the mark is, with full description of its characteristics; (2) a reproduction in drawing, design, printing, or other effective process of the mark with all its accessories, including a sample of the ink proposed to be used; (3) a declaration as to the character of the trade or industry for which the mark is designed and for which it will be used, together with the profession of the petitioner, his nationality, and his domicile; (4) a declaration of the petitioner or his representative as to the size of the mark, such declaration being designed to admit a provision that the mark may vary as to size and color, with a description as to such sizes and the arrangement as to colors. The petition and the copies of the mark accompanying it must be upon strong paper 33 by 22 centimeters (centimeter = 0.3937 inch), with a suitable margin for binding, without folds or joints, properly stamped and dated. The process is the same for the registration of foreign marks as that for domestic marks.

After the filing of the petition with the secretary of the junta, that official noting the day and hour it is received, the question of registration is considered by the junta, and if it is granted the secretary shall so certify the action on each copy of the mark submitted with the petition. One of the copies, with the petition, shall thereupon be filed in the archives of the junta, being given a proper serial number, which shall be noted upon all the copies of the mark. The two other copies thus indorsed shall be returned to the petitioner. The latter shall then, within thirty days, have published in either the *Diario Oficial* at Rio de Janeiro, or in the official organ of the State in which the registration was made, the certificate of such registration, together with the description of the mark originally filed with the junta, and within sixty days shall return to the junta one copy of the mark with a copy of the official newspaper containing the publication.

RIGHTS AND PRIVILEGES.

It is provided that the publication may contain a facsimile of the mark if it is desired by the petitioner. As soon as the registration of the mark has been completed in any of the State juntas, publication may be made in the *Diario Oficial* in Rio de Janeiro for national protection. In case the registration is not granted by the junta in which it was filed, or in case a registration has been allowed which is to the prejudice of the owner of another mark, provision is made for appeals from the decision of the junta on petition of any interested party to the court of appeal in Rio de Janeiro or to the court of second instance in the States. The appeal must be made within five days of the first publication if the appellant resides in the city where publication is made, or within thirty days if he resides elsewhere. The right to bring an action in the courts for the annulment of a registration or for a modification of a mark where the latter injures the owner of another similar mark is protected, even firms not registered having such rights by completing their registration, as firms, with the proper junta.

There is no very close limit as to what may be registered as a trade-mark in Brazil, the regulations providing that anything may be registered which the law does not prohibit and which distinguishes the article from others which are identical or similar but of different origin, including any name, essential or common denomination, firm or company, letter or number, provided it is of a distinctive nature. The rules, in fact, are broader than they are in the United States. Trade-marks may be employed on both the articles themselves or the wrappers or receptacles containing them. Size and color alone can not constitute a trade-mark. The wrappers or receptacles which are to be stamped with a trade-mark should be of a characteristic sort to distinguish them from those in common use; for, it is declared, wrapping and packing as ordinarily done is the common privilege of all. If the trade-mark called for contains any facsimile, design, representation or illustration of medals, prizes, or diplomas obtained at exhibitions the interested parties must show proof that they have been awarded such prizes or diplomas and must present the original certificates or titles thereof, to be returned to them after registration. No marks shall contain a representation of any such medals which may be confused with those of exhibition.

FURTHER RESTRICTIONS.

No marks will be registered which contain (1) public, official, national, or foreign arms, blazons, or orders whose use has not been distinctly authorized by the proper authorities; (2) names of firms or corporations which the petitioner has no right to use; (3) the name of a locality or establishment which is not the origin of the article, whether the name is fictitious, remote, or not; (4) words, pictures, or designs which offend public decency; (5) reproduction of another mark which is already registered for similar articles; (6) exact or partial imitation of a mark already registered for a similar article which might lead to confusion without careful examination. Nor will registration be granted for a mark for any chemical preparation without the name of the manufacturer of the article and the place of origin of the product. Registration also will be refused for articles of Brazilian manufacture described in a foreign language without the name of the manufacturer, the location of the concern making the product, and the name of the factory or the declaration or impression "Industria Nacional" upon it in clear characters, the latter mark alone being insufficient when the marks to be registered relate to alimentary substances. Such provisions are designed to protect foreign manufacturers and consumers in Brazil from unauthorized imitations of foreign goods by Brazilian manufacturers.

The registration of a trade-mark in Brazil holds good for fifteen years, but the mark must be made use of within three years or its registration will become void. At the expiration of a fifteen-year period new registration can be had indefinitely. The expenses attending the registration of an ordinary trade-mark in the junta in Rio de Janeiro are about \$16 at present exchange, but unusual features of a case would increase the cost very materially.

COMMERCIAL AFFAIRS.

SHIPPING AND IMMIGRATION—BLOCKADED CUSTOMS-HOUSES.

Consul-General G. E. Anderson writes from Rio de Janeiro on the following matters of Brazilian commerce:

It is said to be practically settled that the proposed subsidized steamship line between Brazil and Portugal will be established by the latter country. The proposition is for the Portuguese Government to grant a subsidy of 444 contos fortes (1 conto, \$1,080) per annum for a term of fifteen years. The company, which must be Portuguese, must have a capital of at least 2,200 contos fortes. Half of its profits are to be deducted from the subsidy.

The blockade in the customs house at Rio de Janeiro, as well as other Brazilian customs houses, is such that shipping agents have been compelled to organize an association to make some attempt to secure a betterment of conditions. Some of the trans-Atlantic lines threaten to cease their stops at the port.

BETTER MAIL FACILITIES NEEDED WITH THE UNITED STATES.

The announcement that the White Star Line of steamers from the United States is hereafter to stop at Southampton is likely to be followed by the announcement of some important changes in the courses of mail between the United States and South American ports. Mail from the United States with close connections at Southampton would be almost as quick as the fastest direct connections between New York and Rio de Janeiro at present and would have the additional merit of being regular and reliable.

The number of immigrants entered at Rio de Janeiro in 1906 was 27,147, as follows: Portuguese, 16,795; Italians, 4,318; Spaniards, 4,074; Turks, 1,110; Germans, 225; Austrians, 101; Russians, 199; French, 105; English, 72; Americans, 29; Belgians, 15; Argentinas, 14; Swiss, 10; various, 80. This is a considerable increase over the previous year and marks a beginning of better things in the labor line, in the estimation of Brazilian statesmen.

It is published in Brazilian newspapers under a Hamburg date line that the Hamburg-America Line and the Hamburg-South American Steamship Company have decided to jointly inaugurate a service between New York and Brazilian ports.

COLOMBIA.**FOREIGN TRADE ACTIVE.****NEW ERA OPENING FOR COMMERCIAL AND INDUSTRIAL DEVELOPMENT.**

In his annual review of the trade of Barranquilla in 1906, Consul Pierre Paul Demers writes as follows concerning the commercial and industrial outlook in Colombia:

It is very gratifying to be able to state that, after the five years of financial crisis and the national difficulties and universal commercial standstill that followed the close of her last civil war, Colombia is now entering into a new era of commercial and economic development. A decided advance in the various lines has been noted in this district, especially during the last six months. Peace is well established in the country and confidence has once more been restored. The banks have during the year lowered their rates of interest from 18 to 12 per cent, which factor has had a salutary effect upon the business in general. The market is again active and the various industries are working full time, some of them increasing their plants. The building industry has been especially busy of late, and many important new structures are now being erected. Railroads are being extended throughout the country, contracts for the building of new lines have been given, and more still are in project. This is gradually paving the way for many other industries not yet introduced in the country, which will open up its vast natural resources. Minerals, such as gold, silver, copper, iron, manganese, emeralds, coal, and petroleum, etc., are found in large quantities, and only await transportation facilities for development on a large scale. This exploitation of the natural resources of the country and consequent opening of the various agricultural fields will necessitate new and more machinery and appliances of all kinds. It will mean more population and more of every product that is now being

imported into Colombia. In short, the year 1907 is beginning under bright auspices, and the time could not be more opportune for the American manufacturer to begin a serious campaign with a view of capturing the bulk of this trade lying practically at our door.

TRADE AND INDUSTRIES.

Of the foreign commerce of Colombia, amounting to some \$23,000,000 per annum, 65 per cent is conducted through the port of Barranquilla. The port proper is Savanilla, also known as Puerto Colombia, but Barranquilla is the official port, wherein the custom-house, warehouses, ships' agencies, and commercial institutions are located. Barranquilla, which has a population of 50,000, is situated on the western bank of the Magdalena River, 17 miles from the Atlantic coast, to which it is connected by a railway owned by English interests. It is the capital of the new department called El Departamento del Atlántico, and is a thriving city, having more than quadrupled its population during the last three decades. While Barranquilla can boast of many flourishing industries, such as the brick (sand-lime and clay), tile, mosaic, cotton ginning, shoe, candle, soap, soda water, beer, ice, lumber, flour milling, cotton manufacture, etc., it is essentially a commercial city, being by far the greatest port in the country, and the main distributing point for the large cities of the interior, such as Bogotá, Medellín, Bucaramanga, etc. Three banks, The Banco Central, Banco del Atlántico, and Banco de Barranquilla, are established here, and about forty large business houses, making a general import, export, and wholesale trade, besides some 200 retailers in the various lines, and varying in importance from the little corner shop to the good sized general merchandise store.

SEA AND RIVER TRANSPORTATION.

The service between the United States and Barranquilla (Savanilla) is as follows: Atlas service of the Hamburg-American Line, German, weekly; New York sailings every Saturday for Savanilla, via Jamaica, trip eight and one-half days, fare \$60, about 2,000 miles; Savanilla sailings every Tuesday for New York, via Cartagena, Port Limon, and Jamaica, trip fourteen days. Royal Mail Steam Packet Company, English, semimonthly, to New York, via Colon and Jamaica, and vice versa, trip nine days, fare \$60. The Leyland and Harrison Line (Liverpool), thrice a month, to New Orleans, via Colon and Kingston, trip ten days.

In the European service the Hamburg-American Line, German, has three sailings a month; Royal Mail Steam Packet Company, English, two sailings a month; Compagnie Générale Transatlantique, French, two sailings a month; Compania Transatlantica de Barcelona, Spanish, one sailing a month; Compagnia Italiana de Navigazione, Italian, one sailing a month. The trip to European ports, via Venezuela and the West Indies, occupies about twenty days. The average freight rate to New York, per ton, is \$9; to European ports, \$15.

During the calendar year 1906, 326 steamers visited Savanilla, with a total registered tonnage of 691,004 tons, an increase of 150,677 tons as compared with 1908. Of the ship tonnage last year 274,141 was German, 245,170 was English, 99,274 was Spanish, and 25,985 was Italian. One fact to be deplored is that not even an American sailing vessel has visited the port during the year. The consular

records here show that the last American vessel that called at Savanilla was on April 22, 1903, the American bark John Stanhope. Not one ton of American freight to Colombia is carried in American bottoms at present.

Barranquilla owes its importance especially to being the terminus of navigation of the Magdalena River, the great commercial artery of Colombia, being navigable for over 600 miles and carrying on its waters the bulk of the trade of the country. Five river companies have headquarters here, equipped with 36 packets and 43 barges, with a total tonnage of 10,689 tons. Steamboats leave this port for the interior practically every day. The trip to Bogotá, the capital, takes between ten and twenty days, according to the condition of the river and weather. The return trip is made in between six and ten days.

FOREIGN TRADE.

The total foreign trade of the port amounted to \$16,030,109 during the year 1906, an increase of \$882,955 over the year 1905. There has been a decrease in the imports of \$493,826 and an increase in exports of \$1,376,779, showing a balance of trade in favor of the port of \$2,456,000, an increase of \$1,870,604 over the balance of the preceding year.

The following statement shows the value of imports through Barranquilla during the year 1906 as per countries of origin: United Kingdom, \$2,706,252; United States, \$1,217,777; Germany, \$1,127,520; France, \$1,109,686; Spain, \$208,047; all other countries, \$367,773; total, \$6,787,055; total in 1905, \$7,280,879; decrease, \$493,824. The duties levied on the foregoing imports for the year 1906 amounted to \$4,333,028, an average of 64 per cent ad valorem, and an increase of \$228,849 over the year 1905. There was an unusual amount of railroad material imported from the United Kingdom during the year, which contributed largely in obtaining for that Kingdom the first rank among the purveyors to Colombia. On the other hand, as previously reported, the imports of flour have practically ceased on account of the prohibitive duties imposed at the beginning of the year, which fact has solely affected American exporters, and caused our percentage to fall much below our usual share.

THE UNITED STATES TAKES 51 PER CENT OF THE EXPORTS.

The following statement shows the value of the exports from Barranquilla during the calendar year 1906 as compared with 1905: Of the total exports the United States took 51 per cent, the United Kingdom 20 per cent, Germany 17 per cent, France 5 per cent, Spain 1 per cent, and other countries 6 per cent.

Articles.	To all countries.		To the United States, 1906.	Articles.	To all countries.		To the United States, 1906.
	1905.	1906.			1905.	1906.	
Alligator skins..	\$32,790	\$42,948	\$14,883	Hides.....	\$1,012,761	\$996,996	\$436,856
Balsam	12,905	15,686	8,582	Ivory nuts.....	80,771	41,406	2,301
Cattle	273,326	154,080		Mineral ores.....	99,972	97,425	467
Coffee	3,960,396	4,378,892	3,279,649	Rubber	196,660	210,340	76,142
Cotton, raw	7,579	7,275		Tobacco	203,301	291,403	11,577
Cotton seed	5,759	7,004		All other articles.....	529,653	573,202	24,899
Dividivi	49,557	69,291	842				
Goatskins	35,290	32,400	30,258	Total	7,886,276	9,243,054	4,673,542
Gold bullion	1,278,169	1,982,706	575,517				
Hats	157,500	348,000	212,670				

The value of the articles declared at Santa Marta for export to the United States during the calendar year 1906 amounted to \$534,942, consisting of the following items: Alligator skins, \$10,674; bananas, \$498,142; cacao, \$491; coffee, \$4,541; copper (old), \$2,927; goatskins, \$4,148; hides, \$13,999; and logwood, \$20.

CULTIVATION OF BANANAS LIMITED.

Santa Marta is at present the only Colombian port exporting bananas, sending its entire output to the United States. The industry has developed wonderfully, and although yet in its infancy it is by far the greatest industry in the district, the output having increased from 171,891 bunches in 1892, the first year of any recorded export, to 1,397,388 bunches in 1906.

The present acreage devoted to bananas is about 7,000 acres, of which an American corporation owns 25 per cent, the balance belonging to individuals. All the fruit is purchased and exported by the American company, and the following prices per first-class bunch (nine hands or up) are paid the growers: From the months of August to January, inclusive, 15 cents; in February, 20 cents; in March, 25 cents; April, May, and June, 35 cents; July, 25 cents; or an average price the year around of 22.5 cents. It is believed that the general output will be increased 25 per cent during the year 1907.

For climatic and geological reasons, Santa Marta can not be said to be a banana country such, for example, as Costa Rica, whose output now exceeds 1,000,000 bunches per month, with available fruit lands almost unlimited. Irrigation has to be used here during at least seven months of the year, together with drainage, and the winds often cause serious damage to the crop, but labor is cheap, averaging 50 cents per day, and very good returns are obtained, comparing favorably with those in Costa Rica, where winds are practically unknown, rainfall plentiful the year around, and with prices at 31 cents per bunch, but where labor is scarce, of an inferior quality and dear, averaging \$1 per day. Jamaican laborers alone are available on the Costa Rica plantations, whereas native labor is used almost exclusively in Santa Marta, and proving satisfactory. The total amount of banana land conveniently situated for irrigation in the whole district of Santa Marta, including Rio Frio and Fundación, might possibly reach 50,000 acres now awaiting transportation facilities before development.

RAILWAY EXTENSION—COFFEE PRODUCTION.

The Santa Marta Railway, with an actual mileage of 93 miles, has its lines now to Fundación, and is gradually extending across the banana belt toward the Magdalena River, as fast as the lands are taken up and cultivated, and expects to reach the river, at a point called Tenerife, in a couple of years. Santa Marta may then prove to be a serious competitor with the ports of Barranquilla and Cartagena for the foreign traffic of the country, having the advantage of a deep and well-protected harbor, more accessible than either of the other two, and of a quicker ocean service, made necessary on account of the transportation of fruit.

Santa Marta can also boast of being the only district in the country where, at present, coffee can be grown and exported at a profit, since it has no river transportation to pay. There are now seven coffee estates, with about 606,000 trees and a total production of about 3,000

sacks per annum. The estates are located in the Sierra Nevada, at an elevation ranging from 3,000 to 5,000 feet and an average distance of five hours from the port, to which the coffee is transported on mule back.

MERCANTILE NEEDS.

OPPORTUNITIES FOR INCREASED SALE OF AMERICAN MANUFACTURES.

In replying to inquiries concerning the outlook for American trade in automobiles, cotton manufactures, and musical instruments in Colombia, Consul-General Jay White, of Bogota furnishes the following information:

There are only six automobiles in Colombia, four of which are in commission and the other two in stock, unsold. There are few roads outside the cities upon which automobiles can run, most of the travel being done by water and on mule-back. It is claimed that on account of the altitude of Bogota, 8,500 feet, at least 25 per cent of the power of the machine is lost, owing to diminished atmospheric pressure. The tariff on automobiles entering Colombia is 10 cents per kilo; all rubber parts pay 80 cents per kilo—2.2 pounds.

Cotton duck is not in much demand in Colombia. Prints are sold to some extent in Bogota, but in much greater quantities in the low altitudes of the country; sheeting comes mostly from England. The duties on cotton goods are as follows per 2.2046 pounds: Duckings, bleached, 40 cents, and unbleached, 20 cents; sheetings and shirtings, bleached, 30 cents, colored, 40 cents, unbleached, 20 cents, and prints, 30 cents. German pianos are imported in the largest proportion, while considerable quantities of guitars, mandolins, etc., are made in the country. The duty on pianos is 5 cents per 2.2 pounds.

[Lists of dealers in Bogota in the foregoing merchandise are on file for reference at the Bureau of Manufactures.]

FREIGHTS TO THE INTERIOR AND PROPER PACKING.

The minimum freight rate from the coast to Bogota is 3 cents per pound. Merchants ask six months' credits, and collections are slow, but the outlook is bright. All perishable goods should be packed so as to exclude moisture, as freight for the interior must for the present come up the Magdalena River, a journey of ten days, in a tropical climate and on boats of the Mississippi type. Until the close of the present year, when the railway will be completed, all goods must be carried a part of the way on pack mules or in ox carts, in both cases exposed to heavy tropical rains. Goods should not be put up in packages exceeding 125 pounds, which is the maximum for convenient mule-back conveyance.

Consular invoices are required for all goods imported into Colombia and are divided into four classes as follows: (1) Iron and steel, copper, zinc, and wood, to be used in industrial enterprises, such as railways, steamboats, electric lighting, telephones, telegraphs, glass, crockery, and weaving factories, these being classed by the Government as enterprises of public utility; (2) invoices covering goods not exceeding \$200 gold in value; (3) invoices exceeding \$200 and not exceeding \$500 gold in value, and (4) invoices exceeding \$500. The fees, in gold, for the four classes are \$9, \$18, \$24, and \$30, respectively, the latter for each \$1,000 or fraction thereof.

VENEZUELA.

COMMERCIAL CONDITIONS.

HANDICAPPED BY TOPOGRAPHICAL DISADVANTAGES.

Consul James W. Johnson, of Puerto Cabello, writes as follows concerning the topographical and other disadvantages which retard the trade and progress of Venezuela:

Venezuela is not making the industrial and commercial progress that the richness of its natural resources warrants. There may be many reasons for this condition, but there is one which stands out apart from whatever others there may be. This country is seriously handicapped by the nature of its topography. All that region of its territory which by reason of healthful climate is best adapted to habitation, and in which energetic and prolonged work may be carried on, is hedged in from the sea by high mountains and along the whole northern coast there is hardly a river navigable for any practical distance. These high mountains make railway construction difficult and costly; hence there are very few railways. This and the lack of navigable rivers render transportation to the seaboard so slow and expensive that many of the richest products of the interior are profitless for export.

Lately successful attempts have been made in the cultivation of rice, and large quantities were raised; but it was found to be useless to raise more of it than could be consumed locally. This difficulty and lack of transportation not only affects the products of the country for export, but even for home consumption. There is a flour mill in La Guaira which finds it cheaper to import wheat in grain from the United States and pay the duty than to transport it from the western part of Venezuela, where a considerable quantity is grown.

The railways of Venezuela are yet in competition with the burro trails, and transportation by burro is not always cheap. It costs to bring a load of 200 pounds by burro from an interior town 66 miles from this port as much as \$3.20 when the roads are in bad condition, and they are often in that state on account of the frequent rains.

PROPORTION OF PRODUCERS AND CONSUMERS.

Another reason for the undeveloped condition of commercial and industrial life in Venezuela—a reason perhaps in correlation with the one already given—is the fact that so large a proportion of the population is nonproducing and nonconsuming. The majority of the inhabitants of the interior, and even a large percentage of those in the cities, live under almost primitive conditions, producing only what is necessary for their absolute wants. Several dollars in cash will furnish a whole family of that class with all they use for an entire year beyond what they themselves produce.

For Venezuelan merchants and for exporters to this country it is not so much a question of demand creating supply as it is of supply creating demand. Goods must be so attractively brought to the attention of the people of this nonconsuming class that they will be induced to produce something that will be an exchange of value. This would apply particularly to American prepared foods and canned meats. Goods of this class ought to be largely used in Venezuela, if for no

other reasons than that the heat of the climate makes the keeping of fresh meats difficult and renders cooking a distasteful task. The merchants here carry full and assorted stocks of these goods, but their sales are small. The trouble is the people do not know the merits of their excellence or convenience well enough to compel a desire for them. It is a known fact that the people of the United States did not rise up and clamor for prepared foods, but were induced to use them by the skillful manner in which they were advertised by the manufacturers. An advertising campaign of that kind would doubtless create a new market in Venezuela. This applies also to all other classes of goods. In a word, progressive trade and commerce in Venezuela is involved in the same problem which has to be met in all undeveloped countries—the problem not of supplying people with goods, but of first supplying them with wants and in such a degree that they will work to get what they want.

The disadvantages of this country, herein mentioned, are in no way to be compared with its great natural wealth and resources. These will, as a matter of course, be developed, and that development will mean much not only for Venezuela, but also for the United States, its nearest great neighbor.

AMERICAN PRODUCTS—STEAMSHIP SERVICE.

Both statistics and general sentiment indicate that the United States will eventually become the chief source of supply for goods imported into Venezuela. There is complaint that not so much attention is paid to the packing of goods in the United States as in European countries, that American goods often come packed in cases unnecessarily heavy. This is an important item to Venezuela importers, as all duties in this country are paid on gross weight. There is a charge, too, that goods often arrive showing the effects of careless packing. One merchant here recently imported a large order of glassware and crockery from a New York firm. When the goods arrived more than one-half were broken, a result due entirely to inadequate packing. It is needless to say that such occurrences are damaging to American trade. However, these complaints are not so serious an obstacle as the once common prejudice against the goods themselves; they are matters that can be easily remedied by our shippers. Some attention paid to the methods of light but strong packing employed by the European commercial nations, and the bestowal of the greatest care upon even insignificant orders will not fail to increase our already strong hold upon Venezuelan trade.

In contrast to overland transportation facilities, Venezuela has adequate steamship service. Eight different lines call regularly at this port—one American, two English, one German, one French, one Dutch, one Spanish, and one Italian. Besides, there is a line of steamers plying between Puerto Cabello and Cuba engaged in the cattle trade. What it lacks, however, is a coastwise service. There is no sea connection between even La Guaira and Puerto Cabello, the two important ports of the country, except that furnished by foreign steamships. Hence mail arriving in La Guaira, less than 70 miles away, is often three days in reaching Puerto Cabello, for the reason that there is no ship at La Guaira bound for this port; it has to be sent by rail around by way of Caracas and Valencia. The delay is frequently a cause of inconvenience to merchants.

TRADE OF PUERTO CABELLO.

Foreign trade through the port of Puerto Cabello in 1906 showed some improvement, but was below the figures of two previous years. The following table, prepared from the most reliable figures obtainable, gives the value of imports by countries:

Countries.	1904.	1905.	1906.	Countries.	1904.	1905.	1906.
England	\$818,987	\$444,308	\$535,346	Spain	\$141,321	\$100,397	\$94,439
United States	474,722	428,146	522,648	Italy	81,156	45,920	46,246
Germany	459,404	271,606	300,907	Total	2,306,919	1,474,523	1,656,968
France	191,037	116,838	16,549				
Holland	140,293	67,308	140,133				

The foregoing table shows that the United States is the only country which made a gain over the figures of 1904; the sales of England decreased almost a third, those of Germany show a considerable falling off, while France all but lost the market.

EXPORTS LAST YEAR.

The following table shows the exports, by articles, from Puerto Cabello in 1906:

Articles.	Pounds.	Value.	Articles.	Pounds.	Value.
Cocoa	2,006,783	\$237,915	Woods	202,275	\$770
Coffee	28,079,407	2,176,265	All other articles	884,896	41,463
Copra	147,545	3,650			
Deerskins	78,542	11,172	Total	33,255,006	2,749,264
Dividivi	150,827	1,096	Cattle	No.	1,201,008
Goatskins	663,359	102,597			
Hides	1,019,838	173,327	Total		3,950,272
Old copper	21,584	1,009			

The following shows the exports to the United States in 1906:

Articles.	Pounds.	Value.	Articles.	Pounds.	Value.
Bones	250,152	\$1,080	Hides	822,138	\$152,919
Calfskins	1,225	211	Orchids	728	128
Cocoa	135,578	23,343	Tonka beans	2,504	599
Cocounuts	437,104	2,138	All other articles	3,525	438
Coffee	3,871,899	347,669	Total	6,653,242	687,775
Deerskins	64,061	11,073			
Goatskins	1,065,056	148,222			

By comparing the foregoing table with the table of imports it may be seen that Venezuela sent to the United States through Puerto Cabello \$687,775 worth of goods, and bought in return \$522,648 worth, leaving a balance of trade in its favor of \$165,127. The United States has no rival in the imports of wheat flour, lard, and kerosene, and leads all other countries in hams, barbed wire, and patent medicine.

The only public work of any importance undertaken during the year in this district was the construction by the Government of a dry dock and machine shops. The dock is one of 3,000 tons; it is being built by an American firm and by American workmen. The principal machinery of the shops and the entire electric-light plant of the works are of American manufacture. The first section of the dry dock was launched on December 25, 1906; since then two Vene-

zuelan war ships have been docked and repaired therein. It is contemplated that the dock and shops will be used not only for the repair of vessels of the Venezuelan navy, but also of vessels of the different merchant marines which may be in need of having such work done.

TOTAL FOREIGN TRADE.

GREAT BRITAIN GAINS GROUND IN SUPPLYING IMPORTS.

In a report on Venezuela for the year 1906, the British minister at Caracas says:

The general trade of the country is at present small, the imports amounting only to \$8,750,500 and exports to \$15,763,950 last year. Taking the returns of the past four years, imports may be said on the whole to be decreasing, while exports are almost stationary.

Of the foreign goods imported into Venezuela, about equal values were last year received from the United States and from Great Britain and her colonies, who sent about 27 per cent and 26 per cent, respectively, Great Britain thus gaining considerable ground as compared with 1905, when the proportions were 28.2 per cent and 23.3 per cent. The third country in importance to supply Venezuela with goods is Germany, whose trade seems somewhat on the decline, having sunk from a position about equal to that of Great Britain to some 17 per cent in 1906.

The principal articles of importation are—from the United States, cereals and kerosene oil; from Great Britain and her colonies, coal, textiles, and hardware; from Germany, rice and cement.

The chief article of export from Venezuela is coffee, which at present amounts to about 40,000 tons per annum, or 45 per cent of the total value of the export trade, followed in value by cocoa, cattle and hides, balata and gold.

[The British vice-consul at Caracas assigns 30.2 per cent of Venezuela's imports last year to the United States, 29.8 per cent to Great Britain, and 19.7 to Germany.—B. of M.]

CHILE.

HAMBURG'S SALES.

GERMANY MAKING GREAT STRIDES IN THE TRADE.

Consul A. A. Winslow, writing from Valparaiso, says that, according to a report made by the Chilean consul-general at Hamburg, the exports to Chile from that port amounted to 63,471,591 marks (mark = 23.8 cents) for 1906 against 42,101,962 marks for 1905. The consul furnishes the following details:

The greatest gains came in the last months of the year, showing an increase of more than 50 per cent, and is a pointer as to what American manufacturers might do if they would only make the effort. It is fair to say that at least nine-tenths of these exports were manufactured goods and machinery that could as readily come from the United States, and most likely would have done so very largely had anywhere near the same effort been made as was shown by the Germans.

Much more of this trade should be ours. Much of the 10 per cent of the trade coming from the United States to this Republic consists of products that can not be had elsewhere or where the foreign is not equal to the American product, such as typewriters, windmills, agricultural machinery, labor-saving machinery, petroleum and its products, lumber, the coarser cotton fabrics, etc. The American is able to meet the German or English manufacturer successfully in this field in electrical and mining machinery; hardware and small

farming implements, such as spades, hoes, cultivators, and plows; telephone, telegraph, and electrical supplies; cement and builders' hardware; rod and bar iron; railway supplies and rolling stock; chemicals; dry goods and clothing, etc.

This field is being better covered by American salesmen than ever before, but there is plenty of room for more. All with whom I have talked were well pleased with the business done, and one man said for the first forty-five days of this year he sold half as much as he did during the year 1906, and he had only covered a small portion of the territory covered last year. He stated that his expenses would not reach 2 per cent of value of the goods sold. One of the hotel keepers here said to me the other day that more American salesmen were at his hotel last month than were about the city the first six months of 1906. There should be five times as many first-class American salesmen working along the west coast of South America. Other countries have monopolized this field long enough, and it is regrettable to see them keep it without a greater effort on our part to participate.

ARGENTINA.

IMPORTS BY COUNTRY.

INCREASING SALES OF THE UNITED STATES, WHICH TAKES SECOND PLACE.

Consul-General Richard Guenther, of Frankfort, furnishes the following report, from German sources, covering the imports into Argentina during the year 1906:

The imports amounted to nearly \$270,000,000 gold, an increase of \$64,800,000 over 1905. The value of the principal articles were: Foodstuffs, \$17,662,000; liquors, etc., \$11,794,000; textile goods, \$54,130,000; oils, chemicals, and colors, \$17,104,000; iron and metallic wares, \$43,534,000; leather, \$2,314,000; paper, \$4,914,000; agricultural implements, etc., \$17,158,000; railroad materials, rolling stock, and articles for transportation uses, \$35,055,000; ceramic wares, \$24,911,000; building materials, \$22,001,000; and electro-technical products, \$3,430,000. Most of the increased importation represents materials and manufactured articles in the building and transportation lines and for agricultural use. The imports in textile goods also show a large increase.

The value of the imports from the principal countries is shown in the following comparative statement:

Countries.	1905.	1906.	Countries.	1905.	1906.
United States.....	\$28,920,000	\$39,474,000	Spain	\$5,726,000	\$7,371,000
Great Britain.....	68,391,000	94,826,000	Brazil	5,328,000	6,641,000
Germany.....	29,083,000	38,083,000	Uruguay	1,024,000	1,833,000
France.....	21,248,000	26,744,000	Netherlands	1,289,000	1,511,000
Italy	20,620,000	24,123,000			

German papers, in commenting on the statistics, say that the United States, according to the statistical showing, takes second place, but that in reality this belongs to Germany, as considerable German goods are not credited to her because they were shipped from Belgian, English, and Italian ports.

PERU.**RECIPROCAL TRADE.****COMMERCIAL RELATIONS INCREASING WITH ARGENTINA.**

Mr. R. R. Neill, secretary of the American legation at Lima, advises that a mutual agreement has been reached between Argentina and Peru, the purpose being to further the commercial interests of the two countries, concerning which he writes:

For some time Argentina and the Peruvian Government have been trying to increase the commercial relations between the two countries by an interchange of their national products. For this purpose Peru abolished the import duty on Argentine cattle, but for some reason or other it would seem that the trial shipment did not give a satisfactory result. It appears that matters are taking a more practical course, as the British merchant steamer *Circassian Prince* has sailed from Callao for Lobitos (oil wells in the north of Peru), where it will take on 3,000 tons of crude petroleum for a firm which has already placed the order in Buenos Aires, and it is expected that in view of the price obtained regular shipments of the article will be made.

In all probability the *Circassian Prince* will bring a return cargo of wheat and corn for the largest flour mill in Callao. The export of wheat and corn from Argentina to Peru has already commenced, with satisfactory results. At the present time the steamer *Arroyo*, anchored in Callao Bay, is discharging a cargo of 29,000 bags of Argentine wheat, and another steamer is already on the way. There is every reason to believe that a steady trade will hereafter be carried on in the articles already mentioned, and perhaps later on others will be found to be adapted to an interchange between the two countries.

PARAGUAY.**TRADE DIFFICULTIES.****COMMERCIAL CRISIS LAST YEAR AND THE CAUSES THEREOF.**

Consul John N. Ruffin, of Asuncion, writes as follows concerning the conditions, commercial and other, in Paraguay in 1906:

The commercial depression which marked the year 1906 was caused mainly by the lowness of the river, by which trade is carried on with the exterior, drought, and a plague of locusts, which ravaged the country for more than three months and which still, at the close of the year, was doing a deal of damage to all kinds of vegetation. The low stage of the river has made it impossible for large boats to reach Asuncion for some months. Goods have had to be transhipped at the nearest port to which the steamers could safely come, thereby costing 20 per cent additional freight. A large amount of cargo for Asuncion still remains in Argentine ports, where it has been for several weeks, in some cases several months, awaiting its turn to be sent up here. River traffic has been almost completely paralyzed, and at one time it was feared that Asuncion would be completely cut off from river communication, as far as boats of any size were concerned. There is rather more water now, and it is hoped that traffic will regain its usual activity.

During the year 1906 a total of 1,077 immigrants entered Paraguay.

TEXTILES.

MANUFACTURING OPERATIONS.

ENGLAND.

PROSPERITY IN NOTTINGHAM'S LACE INDUSTRY.

Consul F. W. Mahin reviews the lace and hosiery trade of Nottingham in the following report:

The lace industry continues, as for many years past, to be Nottingham's chief industry. For several years, however, the tendency has been to establish all new factories in outlying villages, and some old concerns have moved bodily thither. This shifting has been caused by the cheaper lands and cost of labor in the villages, and by the more rigid trade-union demands and restrictions in the city. But Nottingham still retains the work of finishing the raw product, which employs much more labor than the factories. The condition of the trade in 1906 is fairly stated by a large lace manufacturer, who says he "can not remember a time when lace in general was so much in demand or when it was so easy to sell." Business has been too good, from one point of view. Lace manufacturers have had much trouble in getting a sufficient supply of yarn, and orders have consequently been delayed. But had yarn been sufficiently obtainable, customers would have had to wait, for the utmost capacity of the machines could not possibly have filled orders promptly. In any event, the machines would have been months behind with some kinds of orders. The inevitable result was several advances in prices during the year, aggregating from 10 to 25 per cent on different varieties of lace goods. This has tended in a measure to lessen the complaint about "doing business for nothing," so much heard in recent years.

The total value of Nottingham's exports to America during the three months ended March 31, 1907, amounted to \$2,387,660, of which \$2,016,754 were lace goods. The value of lace goods exported to all foreign countries during the three months was about \$6,000,000, an increase of nearly \$1,000,000 over the corresponding period of 1906, the increase to the United States being \$331,000.

STYLES IN DEMAND—YARNS AND EMBROIDERIES.

Respecting varieties of laces, the demand for narrow Valenciennes was extraordinary. Orders came from all parts of the world, but more especially from the United States, and included all grades from finest to coarsest. Brabants, Clunys, Maltese, and Torchons were also in great request. The only dull line was silk laces, but this has become a chronic condition so far as Nottingham is concerned. The net trade was exceedingly active. All machines were constantly filled, and enough orders are now on hand in some cases to keep them busy all through 1907. Even the curtain branch, which has had disastrous competition to face in late years, was fairly healthy in 1906, but prices were not wholly satisfactory. The only serious complaint heard during the year related to the price of yarns, which in some

cases is about double that of a year ago, but similar conditions existed in the other textile trades. Employees also had a prosperous year. Indeed, one must go back at least twenty years to find it equal—not in wage scale, perhaps, but in steady work for good pay. Every lace workman could find employment, and the demand for skilled operatives was beyond the supply.

Embroidery laces have not been largely produced in Nottingham, but this branch has been growing in the last few years, and particularly in 1906. Those in the trade are now encouraged to thoroughly develop it, and the coming year is expected to witness a large increase of output. Plauen and St. Gall embroideries are made upon nets imported from Nottingham, and it is therefore reasoned that Nottingham should be able to produce embroidery laces to at least as good advantage as those places. While the home trade in lace goods was exceedingly active, the export trade was beyond precedent. Practically all the British machine lace is either woven or finished in this locality, which exported during 1906 \$21,407,957 worth, an increase of over \$3,000,000 in comparison with 1905. The declared value of lace exports from Nottingham to the United States last year was \$5,662,003, against \$4,284,583 in 1905.

HOSEIERY, UNDERWEAR, ETC.

The term hosiery in this country includes socks, stockings, underwear, knit jackets, and practically everything which is knit, in contradistinction to fabrics that are woven. For some years this industry has not flourished in England as in former times, German competition and the development of the manufactures in the United States having struck it a heavy blow; but it still continues to be second only to lace making in this district. The export trade has varied little during the last four years. Manufacturers in this district had a fairly satisfactory year in 1906, and could have done exceptionally well had they not been hampered by difficulty in getting yarns, and, besides, the uncertainty of yarn prices, which promised to fall at the beginning of the year, but which steadily rose instead, led them to defer making contracts that were offered. Makers still preserve that attitude at the opening of 1907, and the year is full of uncertainty.

The high price of raw materials and consequent small profits to manufacturers has led some of them to experiment in making cheap products look like the very best, and they have measurably succeeded. This does not mean that they have fraudulently substituted inferior for superior goods, but only that they have succeeded in making cheap goods more attractive to buyers and consequently in giving them a higher market value.

As to the different branches of the hosiery trade in 1906: The demand for cotton socks and stockings was fairly active, but fitful and not well sustained. The merino and wool branches were well employed, and fairly remunerative prices ruled through the year. Black cashmere hose were firm in value and the machinery was well engaged. Natural wool combinations sold in fair quantities. Manufacturers of merino, cashmere, and lamb's-wool vests and shirts did a good trade, though competition prevented the realization of adequate profits. The silk branches did not do a satisfactory business. Limited quantities of embroidered goods were sold. Elastic goods

and surgical hosiery were in average request. Openwork lisle-thread gloves and fancy hose were selling to a moderate extent, but there was much competition. Motor scarfs and Tam O'Shanter's, a comparatively recent addition to the hosiery product of this district, were produced in enhanced quantities and found ready sale.

The home trade showed marked improvement during the year and was relatively satisfactory. The total of the foreign trade increased over 20 per cent in comparison with 1905 and about 25 per cent compared with 1904. The value of the total foreign sales in 1906 for the Kingdom is placed at about \$10,100,000. Cotton hosiery cut a relatively small figure—\$1,500,000—greater than in 1904, but less than in 1905. The increase in the total exports is credited to the "wool and mixed" branch. The declared value of the shipments to the United States of hosiery exports from Nottingham and Leicester last year amounted to \$260,820 against \$241,082 in 1905.

The competition of Germany, more particularly in the cotton branch, is severely felt by British manufacturers. Not only is it encountered in foreign lands, but also upon the home soil, which is well instanced by the fact that Germany's best customer in its hosiery export trade, next to the United States, is Great Britain. British India is Germany's third best foreign customer, and Australia is not far below in the list.

GERMANY.

LACK OF OPERATIVES IS QUITE PREVALENT.

Consul E. T. Liefeld, of Freiburg, writes as follows on the textile manufacturing results during the past year in Baden:

The cotton market was not disturbed to such an extent as in previous years. Before the new commercial treaties went into effect all the manufacturers bought large supplies, and in the month of June, 1906, the rare case happened that prices for cotton were in conformity with the supply and demand. There was a very good demand for yarns and woven articles, which were sold at profitable prices. Wages have continuously advanced during the past few years and the German Association of Textile Manufacturers reduced the hours of labor of all hands to ten hours a day. There is a scarcity of both male and female operators in this trade.

The large factories of woollen and mixed underwear in Wurttemberg have every reason to be satisfied with business in 1906. Most of the factories had to enlarge their plants, buy new machines and new looms. There was a scarcity of both male and female operators, and for this reason it was impossible to fill all orders. There was also a scarcity of yarns, and the spinning and weaving concerns have enough orders on hand to keep them busy until 1908. Speculation has nothing to do with the present activity and high prices in this trade.

WOOLEN GOODS AND CORSETS.

In woollen goods business in 1905 and 1906 was exceptionally good. On account of an active demand for raw wool prices advanced rapidly; merino wool advanced from 5 to 10 per cent and cheviot wool

from 20 to 30 per cent. The manufacturers are complaining that the quality of wool is not as good as heretofore. They only bought what they absolutely needed for immediate consumption on account of the high prices of the raw material. Prices of yarns have advanced to a higher price than ever before. The wool sold at auction in London was eagerly bought. In spite of extension of factories and increased number of employees it is observed that the manufacturers have no large stock of goods on hand. On the contrary there is in nearly every factory a scarcity of manufactured goods.

The corset business was not very satisfactory last year. Business in the domestic market was good, but export business is steadily decreasing. England is buying the cheapest grades only and the manufacturers here find that it is impossible to fill export orders for these low-priced corsets on account of high prices for raw materials and high wages. Some of the manufacturers also complain that the orders received are too small and that too many different kinds are ordered. There is a scarcity of experienced seamstresses in the corset trade. Complaints are also made that payments are slow and that long credits must be given.

DISTRICT OF BARMEN.

GREAT ACTIVITY IN MANY TEXTILE LINES.

Consul G. E. Eager reports that trade in the Barmen district of Germany developed to a remarkable degree, and the desire for a whole year of great business activity was fully realized in 1906. The consul furnishes the following details:

Those textiles known as "Barmen articles," consisting of hatbands, ribbons, tapes, and braids for dress trimmings and hats, made of cotton and silk and artificial silk, have all shown a marked increase in foreign exports. Owing to the exceedingly high price of raw materials, which are continually advancing, and the great increase of wages, profits have not been entirely satisfactory, but both employer and employee have been benefited materially by this wave of prosperity, which has lasted several years and seems not yet to have reached its climax.

Of all the raw materials used in the manufacture of local products artificial silk takes the lead, all articles of this material being in great demand in all countries. Prices, which had advanced materially in 1905, decreased at the beginning of 1906 to normal quotations, and remained stationary throughout the year, but the manufacturers are now threatening an advance in prices. Experiments are being made to increase the wearing qualities of this material by combining a thread of real silk with one of the artificial silk, and thereby making it less liable to destruction by water and friction. Artificial silk is easily detected from the real by burning a thread of the material. The real silk burns and sputters without flame, leaving a black, gummy substance that smells similar to burned wool. Artificial silk burns slowly with a bright flame and leaves no ash. There was no noticeable progress made in mohairs, ganappes, and wefts over the preceding year, but owing to a strong demand in the autumn for new materials, the prices have appreciably advanced.

YARNS, LINEN, AND NOVELTY GOODS.

During the summer months cotton yarns were somewhat lower, but advanced again toward the end of the year and now command higher prices than for the same period in 1906. There has lately been a sudden and heavy advance of both cotton and silk, sales of cotton yarn being reported from Munchen-Gladbach, one of the spinning centers, of \$2,380,000 in eight days. The export of all kinds of yarns during 1906 showed an increase over 1905 of \$40,570—about 14 per cent. All laces, torchons, etc., that are made on the modern braiding machines were in great demand throughout the year, these braiding machines being a development of the old hand machines for manufacturing shoe strings. Laces of artificial silk, linen, and cotton were ordered in such large quantities that in many factories day and night shifts were necessary to fill the orders. The increase of exports to the United States of linen and cotton laces over 1905 was about 15 per cent. There was an increase in the export trade in linen piece goods and tapes of 22 per cent over the preceding year.

Radium tresses have remained the fashion and are in great demand. They may now be classified among the staple goods. The exports of galloons, trimmings, edgings, etc., show an increase of \$123,553, or about 80 per cent, over the preceding year. The weaving machines were run to their full capacity in the production of edgings, trimmings, and webbings throughout the year. In the summer there was a great demand for ladies' ties and elastic beltings, which to a large extent displaced the tinsel belts of the previous season. Colored artificial silk galloons and trimmings were in such unusual demand that manufacturers had neither looms nor workmen sufficient to run them, and the delivering of their orders was much delayed.

EXPORTS INCREASE EXCEPTING IN SILKS.

Manufacturers of hatbands and ribbons enjoyed an especially brisk business period during the first half of the year. Exports from this district, which had decreased in 1905, increased in 1906 nearly 40 per cent. Boot and shoe lace factories were busy the entire year, but prices were not entirely satisfactory. Manufacturers of hat braids were overrun with orders both for home and export trade, and factories were run to their full capacity. Exports to the United States showed an increase of \$32,617, about 16 per cent over 1905.

The demand for goods made from "iron" yarn was generally good, keeping the factories running continuously. Mercerized yarn remained in great demand, but the fluctuations in the prices of raw materials caused less profitable results than those of the preceding year. Carpet manufacturers report a very prosperous year, principally for home consumption. In upholstery materials there was a slight increase experienced in the export trade, but prices could only be advanced with the greatest difficulty. The export trade in silk and half-silk goods was poor and prices were unsatisfactory. Good business was reported in the home market, but at low prices. Exports to the United States in silk and cotton dress goods showed a decline of 22 per cent compared with 1905. Dyeing establishments and manufacturers of cotton and turkey-red yarns all report a lively business. Button stuffs, for men's clothes only, were much in demand the entire year.

SAXONY.

INCREASING TEXTILE EXPORTS TO AMERICA PROMOTES SUCCESS.

Consul Thomas H. Norton reports from Chemnitz that all branches of the textile and hosiery industries of Saxony look back upon a year of remarkable prosperity. He furnishes the following review of the trade:

Nearly every factory has been able to work to the fullest extent without accumulating stocks, and in most cases without being able to meet current orders. The opening of 1907 witnesses contracts signed for a large share of the annual output, and no signs of a reaction from the uniformly prosperous condition of 1906. Higher rates of money, a steady increase in the cost of raw material, and rising wage scales have prevented net profits from reaching any extravagant figure; but there is unquestionably an atmosphere of satisfaction and contentment in all sections of the Kingdom dependent upon the textile trades, among both the employed and their employers.

HOSIERY.

The year 1906 opened with the hosiery trade in the most flourishing condition, and with most hopeful indications for the future. The actual realization was, however, far beyond all expectations. The export of hosiery to the United States from this consular district in 1906 attained the value of \$6,978,080, an increase over the export for 1905 of \$971,770, or more than 16 per cent. This ratio of growth is not equal to that of 1905, as compared with 1904, which was 40 per cent, an altogether abnormal figure. It represents, however, a substantial, healthy extension of business, and can be accepted as a fair index for the year's development in both foreign and home markets. It would have been greater had not the trade demands practically reached the limits of the productive capacity of the present supply of knitting frames. The manufacturers of knitting machinery are flooded with orders for new frames, but can only gradually meet the increased demand for enlarged equipment. This state of affairs has naturally been accompanied by a marked rise in wages. It is even now a matter of great difficulty to secure enough factory hands. Female operatives who formerly earned \$3 a week now receive often double.

Prices of hosiery have, of necessity, risen in proportion. The increase is not so marked in the case of the finer and more expensive grades, but it is very pronounced for lower qualities. Large quantities of stockings were hitherto manufactured of such quality that they could be supplied the American purchaser at \$1.05 per dozen.

CHANGES TRADE METHODS.

This enabled the latter, after paying cost of transportation, duty, etc., to offer at such wholesale rates, that retailers could sell the stockings at 25 cents per pair, and make a fair profit. Now the cost of such wares has gradually risen until the market rate for the customary quality is over \$1.30 per dozen. American customers are loath to break up a custom which interferes with the standard retail rate, and for a time the attempt has been made to sacrifice quality in the effort to meet retailers' wishes. It is probable, however, that

the latter will have to accommodate themselves and the purchasing public to a new schedule of rates, as the demand for the former prevailing qualities makes itself felt. What is said about the 25-cent hose applies largely to the 35-cent grades, for which the maximum rate here was \$1.57 per dozen. It is practically impossible to secure goods at this price, except of exceedingly inferior quality.

With regard to the styles of hose now chiefly sought, the cheaper forms of lace hose, those quoted formerly at \$1.57 per dozen, are less and less in demand. The grades manufactured at \$2.09 are almost invariably desired by the American market. Most of the frames formerly devoted to the coarser varieties of lace hose are now used for plain hose. With regard to the prospects of this branch for the current year, all authorities are as optimistic as they were at the beginning of 1906. A large proportion of the factories have taken contracts for their entire production up to the autumn of 1907, and some even to the close of the year. The chief elements of uncertainty are difficulty in securing a full supply of yarn and threatened labor agitation. Much pressure is brought to bear by Saxon hosiery manufacturers in favor of the project to grant official recognition by American customs appraisers to the statements of German chambers of commerce as to what are to be accepted as current "market rates."

Apart from the growing market in the United States, Saxon firms are increasing their shipments of hose to South America, the British colonies, and the Philippine Islands. Of the export of Saxon hosiery to the United States over 96 per cent is cotton, 3 per cent silk, and not quite 1 per cent wool.

UNDERWEAR AND UPHOLSTERY GOODS.

Exports of underwear to the United States during 1906 were valued at \$173,193, an increase over the total for 1905 of \$30,000, or 21 per cent. The prospects for the trade during the current year are almost as favorable as in the case of hosiery. Stocks are exhausted, the output for the first quarter of the year is already sold, and many firms have contracted for the sale of their production during the coming summer. Prices have not risen proportionately as high as for other wares, but fair profits are being obtained.

The trade with the United States in upholstery goods varies little from year to year. In 1905 it amounted to \$90,658; in 1906, to \$93,394. This branch has shared to a less degree than the others in the general prosperity. It has been difficult to secure competent labor; the cost of raw materials and general expenses have increased rapidly, and competition from a distance has prevented any serious raising of prices. The trade complains also of increased tariffs in foreign lands as materially affecting the export, while at home there is a lessened demand on account of the prevalent taste for greater simplicity in furnishings and a much less abundant use of fabrics in that connection than was formerly the fashion in Germany. Manufacturers look forward, however, to an increased demand in the early future on account of the evident tendency of the working class to indulge in more expensive furnishings, as a result of higher wages.

HEAVY DEMAND FOR GLOVES.

The glove trade usually moves in parallel line with the hosiery production. It has been difficult to fill the numerous demands which

poured in during 1906. New frames have been ordered in large quantities, but some time will elapse before they can all be delivered. The insufficient supply of operatives skilled in glove sewing has likewise hindered a prompt response to the calls of the market. The output of the factories is sold for many months ahead. Numerous purchasers have contracted for their needs during the winter of 1907-8 and contracts are now being made for 1908.

The best authorities declare that there can be no serious check to the present prosperous condition of the trade for the coming twelve months. This condition is due largely to one of the whims of fashion. The prevalent style of ladies' dress with short sleeves inevitably led early last year to a rapid increase in the demand for long gloves, especially silk gloves. At present there is no cessation in this demand. It is increasing, if anything. Should there be a diminution during 1907 in the consumption in the markets of Europe and the United States, there is every evidence that it will be more than counterbalanced by the large orders now beginning to arrive from South America and colonial centers, where the new fashion has just come into vogue.

There are many indications, however, that in the matter of silk gloves, at least, the Saxon manufacturers look with some fear on the rapid development of American competition. It is now well known here that the production in the United States has expanded during the past few months in hitherto unknown proportions. There is, in consequence, a general expectation that in the early future the sale of silk gloves to the United States will be seriously curtailed. The following are the figures for the exportation to the United States of gloves from the Chemnitz consular district for the past two calendar years:

Year.	Cotton.	Silk.	Woolen.	Total.
1905	\$1,184,912	\$142,906	\$272,634	\$1,600,452
1906	1,764,401	636,613	254,462	2,655,462

PLAUEH EXPORT FLUCTUATIONS.

REDUCTION OF LACE SALES TO AMERICA IS KEENLY FELT.

Consul Carl Bailey Hurst states that, owing to the heavy buying in the United States of Plauen lace goods during the past year, the export from that German district of cotton laces and embroidered articles suffered a marked decrease during the first quarter of 1907, the downward tendency having started in September of the previous year. The consul furnishes the following particulars of changes in Plauen exportations:

In the first quarter of 1906 the declared exports of laces and embroidered goods from this district to the United States were: Cotton, \$1,565,275; linen, \$4,992; silk, \$31,550; silk and cotton mixed, \$2,508. During the first three months of 1907 they were: Cotton, \$1,023,828; linen, \$11,436; silk, \$25,733; silk and cotton mixed, \$2,604, and cambric, \$16,079, which last variety was scarcely noticeable during the corresponding quarter of 1906. The total decrease in Plauen laces of

all kinds, including the outlying neighboring factory towns making similar goods and comprised in this consular district, was \$524,644.

The temporary decline in the export to the United States finds its explanation in the overstocking, especially in inferior goods of the previous season and in the shifting of fashions to competing Calais and St. Gall specialties. While the local manufacturers would be glad to see an early renewal in the demand for Plauen goods, they have, nevertheless, been fairly occupied, until recently, in supplying the English market, which was satisfactory at the beginning of the year, although some financial failures in English lace-buying houses and the stocks already on hand have resulted in a subsidence in the export in that direction. France was a good buyer for the quarter in question, particularly for fine goods. The demand in the German market for best and middle grades has been strong. But this favorable business done in other countries does not fully compensate for the over half million dollars loss in lace exports to the United States.

LACE MACHINERY AND MUSICAL GOODS SHIPMENTS.

In comparison with the \$13,117 worth of lace-making machinery exported from here to the United States during the first quarter of 1906, machinery to the value of \$43,095 was bought by the United States during the first quarter of 1907. Local lace manufacturers have been apprehensive, owing to the steady increase of the export of shuttle machines made in Plauen, that laces would be exported in less quantity, but it seems that the chief goods made by these machines in America are, at present, Swiss embroideries.

The value of ladies' dress goods exported from this district during the first quarter of 1906 was \$128,637, in comparison with \$100,384 in 1907. The total exports from this consular district during the first quarter of 1907 amounted to \$1,316,660, in comparison with \$1,802,434 for the corresponding period in 1906, being a net decrease of \$485,774.

ASIA MINOR.

NEW CHEAP RUGS TAKE THE PLACE OF ANTIQUES.

Consul E. E. Young, of Harput, reports that the genuine antique rugs, which used to be found in every home and market stall in that part of Asiatic Turkey have been swept clean from the local markets, with the following results:

Here and there one may be occasionally "picked up," but their value has become known and established, and the stream of these fine old rugs which has been pouring into the United States and European countries has left this region practically bare. To take their place the market has been glutted with rugs fresh from the factories and marked by a lack of harmony in colors, inferior designs, and by the use of aniline dyes. It was, in fact, the use of these chemical coloring matters that nearly paralyzed the rug industry throughout this district. Cheapness of labor and the low cost of wool are two important conditions which serve to keep alive in this country the art of making rugs by hand.

PAPER YARN.

UTILIZATION OF CHEMICAL PRODUCTS INSTEAD OF RAW MATERIALS.

Consul T. H. Norton, of Chemnitz, advises that various efforts have been made in Germany during the past twenty years to release its textile industries to some extent from dependence upon foreign cotton and jute, and chiefly in the direction of utilizing wood cellulose as prepared for paper manufacture. He sends to the Bureau of Manufactures samples of the resultant new German products and describes the methods of their preparation. Under date of April 4, the consul says:

In 1887 a firm in Chemnitz secured patents on a method for spinning paper. Improvements in the method were patented by others in 1891, 1897, and 1901. Yarn is now manufactured regularly at Adorf under the 1897 patent, and is sold under the name of "xylolin yarn." The product of the patent of 1891 bears the name of "Licella yarn." That of 1901 is termed "silvalin yarn." Licella yarn is now made at Waldhof, near Mannheim. There is but little difference in the three methods of manufacture employed.

In the preparation of the Licella yarn cellulose in the form of wood pulp, rags, or other material is submitted to the customary treatment in a "hollander" and slightly ground. Wood pulp which has been subjected to the action of caustic soda possesses a slight advantage over that produced by the sulphite method, yielding a more pliable form of paper. The prepared pulp is drawn off on wire-cloth drums or frames, so as to form narrow bands of paper. These are partly dried by passage over hot cylinders and collected either in tubs or on rollers. In this slightly-moist condition these bands are spun by an ordinary spinning machine into yarn, which can be woven immediately or after being air dried. The yarn is easily dyed. By treatment with various chemicals its strength and elasticity are notably increased, and it presents a smooth, glistening appearance. Paper yarn thus treated is sold under the name of "Ferrofil and Ferrocillin." It is employed to some extent for galloons, edgings, girdles, suspenders, and the like:

DIFFERENT USES OF YARNS.

The Licella yarn is used in weaving as a substitute for cotton, jute, and other fibers, but apparently to no considerable extent. The manufacturers claim that it can advantageously be employed in weaving fabrics for wearing apparel, table cloths, towels, upholstery materials, rugs, hangings, buckram, linings, sacking, etc.

The samples sent to the Bureau of Manufactures show a variety of threads and numerous forms of woven fabrics. The coarsest is a sacking material and closely resembles ordinary jute sacking in appearance. It is fairly strong, and reliable reports state that it is fully as durable as the article of jute. Some rather tasteful figured stuffs intended for hangings, portieres, etc., are of composite structure, the warp being of cotton and the woof of paper yarn. Heavier materials of this sort are said to render good service as rugs. The lighter stuffs are apparently too stiff to lend themselves easily for use as

wearing apparel. A light, blue stuff, with a rather lustrous surface is, however, not far removed in point of pliability or suppleness from certain grades of American cotton fabrics which find a ready market among the Chinese. A closely woven stuff, upon which designs have been printed, could be used very effectively for a wall covering.

ONE MANUFACTURER OFFERS CRITICISM.

A local manufacturer, who has had considerable experience with paper yarn, expressed himself very frankly as having but little confidence in its extended use: "Despite the apparent difference in the cost of wood pulp and cotton (1 to 3), there is really but little actual economy in using paper, as the utilization of the refuse of the cotton, flax, and jute spinning works for the production of inferior yarns has been so perfected that the latter are nearly as cheap as paper yarn and far more durable. Fabrics in the weaving of which paper yarn is employed must certainly deteriorate when exposed to moisture. Paper yarn has been employed to some extent for the web of sacking material; but in this case, in order to secure the requisite strength and solidity it has been necessary to twist it into a regular thread or twine, thus adding to the cost. For a time much was expected from the use of paper yarn. These expectations have failed of realization, since the refuse materials of spinning factories have been utilized so thoroughly. The use of paper yarn in rug weaving is at present the chief application which seems to present any distinct economical advantage. It has been proposed to use cotton and other vegetable fibers in the manufacture of paper in order to render it stronger and more durable. This is illogical, as the first steps in paper making, the treatment in the 'hollander' involves comminution and disintegration of the natural fibers—i. e., the loss of their distinctive properties."

Another gentleman closely in touch with textile progress in all European countries informed me that paper yarn has been spun and woven at Verviers, in Belgium, for ten years past. The paper cord is largely used for tying small packages. The sacking manufactured there has rendered admirable service and seems to replace the jute article perfectly. Sacks of this material have been very successfully employed as mail bags.

TREATMENT WITH FISH GELATIN—SUCCESSFUL TESTS.

By treatment with fish gelatin the resistance to moisture has been so heightened that woven stuffs can be repeatedly washed and do not suffer from exposure to the elements. An interesting application of paper at Verviers is that of the manufacture of hats in imitation of ordinary straw head gear and of the more costly Panama hats. The results are said to be very satisfactory. Special advantages are claimed for the paper hats apart from the cheapness. The color of the artificial straw or of the imitation leaves of the Central American screw pine is but little effected by exposure to the sun, and, what is of considerable importance, the plaiter can command the use of material of any length.

With regard to the ability of fabrics woven wholly or partly from cotton yarn I made a few tests. Various samples were soaked in cold water for twenty-four hours. After drying, the only apparent

effect was a slight shrinkage of the material. The strength was not appreciably affected. Such tests would warrant the assumption that garments made from the new fabrics would not be seriously injured by frequent exposure to rain. They are, of course, not conclusive as regards resistance to laundry operations, involving exposure to hot alkaline solutions or to the continued action of perspiration. The coarser yarns, intended for sacking, etc., are sold at prices below those of the corresponding sizes of jute yarn, while the finer numbers are much cheaper than either jute or cotton. More complete information can be secured by those specially interested in this branch from a pamphlet by Pfuhl, "Papierstoffgarne," published at Riga, Russia, in 1904. Copies could probably be secured from the American consulate at Riga. In connection with this matter it might be stated that the total paper production of Germany for 1906 was estimated at 2,200,000 short tons, of which one-half was used for printing purposes.

USE OF PAPER CLOTH.

A statement copied recently in American trade journals relative to the use of paper cloth is apt to be misleading. It contains the following: "Sufficient attention has been directed toward the warmth generated in the body by paper vests to demonstrate the fact that there is reason for serious consideration of paper garment manufacture." Paper does not "generate" heat when in contact with the skin or when used as a vest any more than any other inert substance. Rough fabrics, more particularly certain coarse woollen goods, do stimulate the circulation when in immediate contact with the skin, but purely as the result of mechanical irritation. It has long been a matter of common household knowledge that a sheet of stout paper is as good as a heavy garment in protecting any given part of the body against cold. Thus, a newspaper between a vest and a coat protects the back of the wearer as effectively as if he wore a heavy overcoat, and the use of paper to protect the feet is well known. Its value in this connection is based upon the fact that it is a poor conductor of heat and but slightly permeable in most of its forms. It is comparable in this respect to a thin garment of caoutchouc as a protector against cold, because it retains about the body a layer of air already warmed by animal heat. It does not have all of the disadvantages attending the use of caoutchouc, resultant from the complete impermeability of the latter, and the consequent condensation and retention of the moisture emanating from the skin, but in the latter respect it is probably less healthy than tissues of animal origin, such as silk and wool. These, when employed for garments, permit the very slow exchange of the layer of warm air about the body, charged with its various emanations, for external colder air.

PAPER FABRICS INFERIOR TO COTTON FOR WARMTH.

When the value of paper as a protector against cold is advanced as an argument in favor of its employment in the woven form for wearing apparel, it must be recollected that the continuous sheets of paper only can be regarded as possessing the property in question. A fabric woven from paper yarn possesses even less power to hold air in its meshes than the same thickness of fine cotton cloth. Weight for weight, or thickness for thickness, it would be decidedly inferior

to cotton as far as protection against exterior cold is concerned. Per contra, it might for the same reason have a decided advantage over cotton as a material for clothing in tropical regions, where the temperature of the surrounding air is above that of the human body.

A distinct field for the use of paper fabrics as wearing apparel might be found in warm climates, especially in arid or semiarid regions, also for workmen needing heavy garments which are not frequently washed. For rugs, hangings, and the like there is a probable future. The demonstrated availability for sacking material assumes a special interest in the United States, where there is now so marked a movement in favor of superseding jute by cotton bagging.

SILK INDUSTRY.

CHINA.

TUSSAH IS AN IMPORTANT MANCHURIAN COMMODITY.

Although much has been written about the wild-silk industry of Manchuria, Vice-Consul-General Albert W. Pontius, of Newchwang, says that no reliable report on the export of this article during the past few years has been made. A personal trip to the Kaichow market convinced him of the truth of this statement, and he now submits the following observations:

Spun tussah or wild silk comes near being the chief article of export of Manchuria. As all silk experts know, this silk is produced from cocoons the worms of which are fed on oak leaves (*Quercus mongolica*). This silk, after being spun, is shipped to Kaichow, where the tax collector, appointed by the Chinese Government, is stationed. This official holds his position only after guaranteeing to pay the Government a yearly sum collected through his official position. As he is the only official collecting tax on this article of export, the natives are obliged to ship all their silk to his station. None of the silk exported from Kaichow is spun at that place.

Kaichow, or Kaiping, is a walled city lying about 25 miles directly south of Newchwang. It is about 5 miles from the sea and of easy access to the railway, being only about 2 miles distant from the Kaiping station of the South Manchurian Railway. After the silk arrives at this place and passes through the hands of the tax collector it is reshipped to different ports for export.

EXTENSIVE SHIPMENTS.

The Newchwang customs returns for 1906 show that wild silk to the amount of more than \$1,300,000 gold was exported from that place alone. The value of the exports through Dalny are unobtainable. The representative of a German firm at Kaichow informed me that wild silk to the value of nearly \$3,000,000 gold was exported during the past year. The export figures during the past ten years have varied considerably, running as high as 27,000 bales and as low as 1,600 bales. Each bale contains one picul, or 133½ pounds. The average value per bale for the past ten years was about \$136 gold.

Had not the late war interfered with the crops, the figures would have been higher than shown, as both the population and trees have suffered as a result. Both the Russians and Japanese obtained concessions to cut trees in the Yalu district, and as a consequence the oak forests have suffered to some extent. The very life of the cocoon depends on these trees, and the Chinese Government must adopt some measure for their preservation if the wild-silk trade is to retain an important position in the exports of Manchuria. Too much importance can not be laid on this fact.

Special investigations on the wild-silk market of Manchuria have been made by a German firm which is much interested in the American and European silk trade; and I learn from their representative that Kaichow and Antung are the silk markets of this province. But while Antung mainly exports cocoons to Chefoo, where the silk is spun in foreign style, Kaichow is the market for silk spun in the old fashion.

While wild silk is cropped and spun in districts considerably distant from Kaichow, the spun article must be sent to this place. The number of bales of wild silk brought to Kaichow and reshipped for export through the ports of Newchwang and Dalny agrees with the Shanghai customs returns, thus proving Kaichow to be the distributing market of the province for that article of export.

SALES METHODS AND PRICES.

The business of Kaichow is done almost entirely through Chinese. The market price per bale varies according to the large or small demand in Shanghai and is also influenced by the stocks in that place. The business is generally done during the winter, and the conditions are such that business on a commission basis is simply out of the question. Wild silk can only be bought speculatively. Offers are obtainable in Shanghai through merchants who hold stocks and who have their Chinese representatives in Kaichow. The foreigners, therefore, have an advantage in buying in Shanghai. When the market began in November of last year the price of one bale ranged from \$130 to \$132 gold; since then the prices have gone up steadily, until now a bale will bring as high as \$168 gold.

Manchurian silk, tussah filature (small reel), tussah native (large reel), and tussah waste (wild-silk refuse) have repeatedly been shipped to the United States, but at present, owing to the lack of demand, only tussah filature of the very best variety finds a steady market. This grade brings about \$225 gold per bale of 133½ pounds. Tussah native has never pleased the American consumer, and tussah waste, having been spun in England, turns up in the United States as tussah spun silk, or "schappe." About ten years ago larger lots of the original waste were tried, but with little or no success. The reason given for the lack of demand in the United States for both tussah native and tussah waste is the high scale of wages paid, and the failure to find a market in that country. Tussah once colored has the same aspect as mulberry silk.

Wild silk as reeled by the native method has a dark gold color, without much luster, and has a distinct soapy odor, which is due to the final washing in a strong soap solution. The dark color is due to the action of the alkaline solution, used to dissolve the gum in the cocoons, on the iron kettles used for the purpose. If a copper kettle

were used, the color would be somewhat lighter, as is the case in Shantung, where the silk produced is somewhat lighter than the Manchurian variety.

EXTENT OF EXPORTATION.

The export of wild silk from Newchwang for five years, each ending with November 30, was, in United States currency: 1901-2, \$636,470; 1902-3, \$894,115; 1903-4, \$1,323,646; 1904-5, \$1,430,735; 1905-6, \$1,336,989. During the present year and up to March 11, 1907, 7,160 piculs tussah native, 460 cases tussah filature, and 7,480 piculs tussah waste were shipped out of Kaichow, 6,000 piculs of which were shipped through Dalny, the remainder through Newchwang.

From a chart compiled by Jaques Nathansohn, of Berlin, the quantity figures of raw Manchurian silk exported from Shanghai during ten years, each ending with November 30, were, in piculs, as follows: 1896-97, 11,500; 1897-98, 12,800; 1898-99, 1,600; 1899-1900, 12,025; 1900-1901, 15,000; 1901-2, 9,000; 1902-3, 13,350; 1903-4, 27,000; 1904-5, 16,850; 1905-6, 14,500.

Tussah filature, 8, 7, and 4 cocoons, attracts the most interest, and the greater part of this variety is spun at Chefoo. Of the Manchurian wild silk produced, 20 to 25 per cent is tussah filature and 70 to 75 per cent consists of tussah native. The tussah waste thrown off during a year amounts, roughly speaking, to 6,000 bales, of 266½ pounds in each bale. All the tussah filature and tussah native is already spun, while the waste must first be spun into thread before it can be put to its various uses. The word "tussah" is not derived, as is generally supposed, from the Chinese words "tu ssu" (local silk), but had its origin in India many years ago, the Chinese name being later taken from the Indian one.

ITALY.

REVIEW OF MARKET CONDITIONS FOR THE PAST YEAR.

Consul A. H. Michelson, reporting from Turin, furnishes the following information concerning silk production in Italy last year:

Piedmont produces about three times as many cocoons as the Italian province ranking next below it in point of productivity, and in proportion to its size is perhaps the most prolific silkworm district of the world, the yield of the province during 1906 amounting to 11,001,647 pounds, with a value of \$3,956,583, showing a decrease of 2,086,461 pounds and \$97,787 in value as compared with that of 1905. The prices realized were slightly higher, leaving the net profit to the province during 1906 practically the same as in 1905.

In raw silk the market has been one of exceptional firmness. The recent depression in America, now fortunately at an end, caused no sympathetic decline in prices here, for this was more than offset by the action of Russia in the beginning of the year, when the prohibitive tariff on raw silk was abolished and the article placed on the free list. With the American demand strong again and the new and important Russian field awaiting development, the year closed under the most auspicious circumstances. It may be mentioned that considerable interest and some slight uneasiness is evident as to the

probable effect of the recent legislation in favor of denaturized alcohol on the artificial silk industry in America.

INCREASED PRODUCTION OF RAW SILK.

Official figures regarding Italy's exportation of raw and manufactured silk during 1905, and during the first eleven months of 1906, show a total exportation of raw silk amounting to 10,244,080 pounds in 1905 and 12,618,320 pounds during the first eleven months of 1906, or an increase for the eleven months of last year of 2,374,240 pounds. The exportation of raw silk to the United States from the province of Piedmont decreased from \$582,099 in the fiscal year ending June 30, 1905, to \$503,533 in the year ending June 30, 1906. The exportation of manufactured silks from Italy of all kinds during the calendar year 1905 amounted to 8,049,580 pounds, and 8,528,300 pounds during the first eleven months of 1906, an increase of 478,720 pounds. As Italy imports practically no silk of any kind, it may be assumed from these figures that the annual production of raw silk in the Kingdom amounts to over 20,000,000 pounds. About one-tenth of this production was reeled in Piedmont during 1906. The total silk in stock in Italian warehouses on December 31, 1906, was 872,495 pounds, while that of waste was 59,100 pounds. The amount in stock on December 31, 1905, was 1,006,179 pounds of silk and 153,594 pounds of waste. The amount of raw silk measured and weighed at the silk exchange, Turin, during December, 1906, was 154,183 pounds as compared with 98,989 pounds during December, 1905.

FLAX AND LINEN.

FRANCE.

PROFITABLE MANUFACTURING OPERATIONS IN LILLE DISTRICT.

Consular Agent C. J. King, at Lille, in his annual report, says that while prosperity is evident in all lines in that part of France, exceptionally favorable conditions prevail in the flax and linen industry, concerning which he writes:

Only twelve months ago warehouses were stocked with yarns and goods, prices were never lower, and spinners were devising means for curtailing cost of manufacture to cope with the popular demand for cotton fabrics which were constantly replacing and classing linen goods as articles of luxury. At the present time not only has the surplus production disappeared at advanced prices, but the spinner, while endeavoring to meet present demands, will require at least eighteen months to turn out the quantity of yarn already contracted for.

Singularly enough, and with raw material still at normal prices, the immediate profit derived from this change in the linen industry fell to the lot of the spinners, who are well organized and syndicated, while the weaver, merchant, and consumer were left to discuss and accept the forced increase in the price of yarn and fabrics. Moreover, as the spinners are exacting and obtain with little difficulty about \$3 more the 100 hanks (360,000 yards) for dry-spun yarn and from \$4 to \$5 for wet spun, and the dyers, bleachers, and weavers are raising prices, together with the merchants suppressing discounts

and raw material equally falling into line, the linen market shows firmness and promises to maintain itself at least for the next two years, if not for four years more.

WEALTH IN FLAX GROWING.

It is indeed under such existing conditions that the great value of the linen industry is fully realized, and that the industry which rendered Lille and its chief product reputed the world over is still a reliable wealth-gaining industry for the region. Formerly the cultivation of flax was more widespread in the north of France, the quality of which has never been surpassed, but the extensive growing of flax in Russia and the employment of these cheaper grades by domestic spinners, coupled with the great care required for producing fine quality, brought about an enormous decrease in the annual yield. Of late years, however, owing to the encouragement of the flax spinners' industrial societies and the minister of agriculture, a very sensible increase in the yearly crop has resulted; and the present flourishing state of the trade can not fail to stimulate French farmers toward a greater production.

Taking into consideration the stability of the linen industry and the market value of its products, more attention, it would seem, should be given to promoting a higher flax cultivation, finer spinning, and manufacture of linen fabrics in the United States. The natural difficulty of obtaining large quantities of the raw material, other than the crude plant of the Dakotas and Minnesota or the costly fiber from foreign countries, is a serious drawback, but such a situation should not be allowed to continue. The flax or linen industry should, both as to culture and manufacture, be especially favored, so that the industry could assume the importance which the natural resources of the United States assure it.

Following the examples presented in foreign countries with respect to cotton growing and that industry, serious encouragement should be given to farmers to increase the production of flax not only in the Western States, but on the smaller farms of New England and the vaster tracts of land of the Middle and more northern of the Southern States, as the necessary attendance and care required by the sprouting and first growth of the fiber can not be easily given in the far West, owing to the difficulty of obtaining and remunerating sufficient man labor.

EXPORTS FROM LILLE.

The exports from the district of Lille for the year 1906 show a large decrease in raw flax amounting to over \$100,000, due principally to the inability of shippers to furnish the required quantities at prices offered. The same conditions are likely to exist for 1907, owing to the increased activity of the spinners and high prices of the raw material. The flax shipped from Lille to the United States last year amounted to \$37,123; flax waste, \$98,573; flax yarn, \$11,992, and flax thread, \$10,849.

While noting the decrease in flax, the sudden increase in the exportation of linen fabrics merits notice. Although the district of Lille is the center for linen yarns and goods and holds weekly markets regulating the market value, hardly any shipments have been recorded at this agency for a number of years, American buyers, according to dealers, preferring to invoice at Paris. Notwithstanding

this custom, a slight change is apparent during the last year, owing to the extra run on linen cloth for dress suiting and the successful competition of the firms here both in price and quality in what is generally termed "paddings," American purchases of which amounted to \$16,568 last year. Other linen shipments to the United States in 1906 were \$25,462 of cloth, \$3,564 of brocades, and \$2,341 of handkerchiefs.

AUSTRALIA.

NEW INVENTION FOR TREATING FLAX.

A new Australian process for converting worthless flax into a good fiber is described in the London Commercial Intelligence, as follows:

Sheaves of straw are immersed in a hot neutral solution for about one hour, after which the flax is passed through rollers during which it is sprayed, by steam force, with a special solution and then with clean water. The flax is then dried and the straws broken and scutched in the usual manner. Each bath holds about 336 pounds of fiber and the cost of solution (there) does not exceed 48 cents. The same bath may be used repeatedly, thus reducing the cost of the operation. Frequent use of the same bath somewhat darkens the fiber, but for some purposes this is little or no detriment. The light fiber can be used for many purposes without further bleaching treatment, which is frequently an expensive process. It is claimed by the inventors that their process can be carried on continuously, independent of weather conditions, and also that the fiber is produced so cheaply that it will ultimately, to a great extent, take the place of other fibers after meeting the world's demand for *linum flax*.

JUTE INDUSTRY.

CONTROLLED BY BRITISH INDIA—COST OF PRODUCTION.

Special Agent William Whittam, jr., writing from Dundee, furnishes the following report on the jute industry of Scotland and British India:

British India controls the raw jute output of the world, and that country is fast reaching a position where she will dominate the manufactured product, if indeed she does not already do so. Considering conditions in the United States, and taking a broad view of the advisability of extending our manufacture of jute goods, one is confronted with a curious situation. In the face of a rapid erection of new mills in Calcutta and vicinity, Dundee, Scotland, maintains the volume of her output of such goods by superior knowledge of the workable value of the fiber and the greater skill of her operatives.

During the fiscal year ended June, 1906, the United States imported 103,945 tons of raw jute and jute butts, valued at \$6,449,684, and \$6,151,540 worth of this came from the East Indies. Gunny cloth and jute bagging suitable for covering cotton bales to the value of \$619,800 was entered in 1906. Jute bags worth \$2,432,383 and burlaps weighing 311,118,257 pounds, valued at \$20,083,938, were also imported last year, giving a total of \$23,139,121 worth of jute fabrics purchased by the United States for the fiscal period 1906. Burlaps being the item of greatest value it is interesting to find that the East Indies sent us \$14,628,216 worth, while our purchases from the United Kingdom amounted to \$5,316,495. Following the usual course of new industries in countries hitherto mainly producers of raw materials rather than of finished goods, India seems to be manufacturing the cheaper grades of burlap. This is shown by the average prices

per pound of American burlap imports from the United Kingdom and East India.

We paid India an average of 5.99 cents a pound, while for our takings from Great Britain we paid 8.07 cents a pound. I have sent samples of the goods, which are standard, to the Bureau of Manufactures, the range being:

Reed or porter.	Picks or shots.	Ounces per yard.	Width.	Reed or porter.	Picks or shots.	Ounces per yard.	Width.
			<i>Inches.</i>				<i>Inches.</i>
9	10	8	40	10	12	9	40
10	12	9	40	10	12	12	40
10	13	10	40	10	9	8	40
11	14	11	40	10	12	9	40
11	14	12	40	10	10	8	40
12	12	10	40	10	12.3	10	40
11	13.4	11	40				

Taking Dundee as typical of British conditions, I find that the labor cost there to manufacture 11 porter, 12 pick or shots, burlap cloth, 11 ounces per yard, 40 inches wide, is 2.46 cents per 100 yards, the production per loom per week of fifty-six hours being 1,000 yards. In the question of our ability to make burlaps for the domestic market the weekly wages of operatives play an important part. In Dundee the average earnings of card-room workers is 13s. (\$3.12); spinning room, 14s. (\$3.36); while weavers average 17s. (\$4.08) per week of fifty-six hours. The total number of jute mills in Dundee and vicinity are 54, while India has 34; but in Calcutta I learn that new jute mills are being erected far in advance of the increase in cultivation of the raw material or the education of mill laborers.

COST OF PRODUCTION.

All the Indian jute mills are completely self-contained. They buy raw material and turn out the bale of finished goods. There are no mills which sell jute yarns to weaving factories. To carry on this sort of manufacture in the United States economically each mill should have looms to produce from burlap grades down to the coarse material suitable for covering cotton bales, thus enabling a mill to use up all its raw material, the lowest grades and waste from the burlap department being used in the making of cotton bagging. Cost of production is figured on the long ton of 2,240 pounds as a unit. The cost per ton naturally varies according to the weight and fineness of the fabric, being lowest for the coarsest and heaviest goods. In India ordinary burlaps cost to make from \$43.75 to \$48.50 per ton, inclusive of selling agency commissions and all charges except raw material. Some mills get their cost as low as \$38.50 per ton, which is considered an exceptionally low figure. On the other hand, a few less ably managed establishments run their cost up to the highest amount I have named. For ordinary sacking \$24.25 a ton will cover all manufacturing charges; coarser "woolpacks" costing \$19.40 and finer "Cuban sugar" bags \$29 to produce. To these figures must be added the cost of the raw material, which varies with the market and the skill of the management in using it to the best advantage. Some managers on this account require much better and dearer material than their competitors to make the same class of goods. This is emphasized by the fact that Dundee burlap manufacturing costs are about \$9.50 per ton higher than those obtaining in Calcutta, but owing to the greater ability of the British managers and skill and

care of the operatives this extra factory cost is partly overcome by the use of a lower quality of jute to make the same class of goods.

ESTIMATED COST OF A FACTORY.

To convey an approximately accurate idea of the cost to put up a jute mill in the United States of a good size for economical production and low fixed expenses per pound, I append a list of machines required and their cost in British pounds sterling, f. o. b. steamer, in England or Scotland:

Cost of preparing, spinning, winding, beaming, and finishing machinery for 300 looms to manufacture burlap cloth up to 48 inches wide.

Article.	Cost.	Article.	Cost.
1 jute opener.....	£90	6 cop-winding machines, 120 spindles each.....	£1,128
3 jute softeners with batching apparatus.....	855	6 yarn-dressing machines.....	1,914
10 jute breaker cards.....	2,420	12 bobbin banks for the above.....	210
14 jute finisher cards.....	3,584	300 looms.....	6,000
14 two-head first drawing frames.....	2,016	4 cloth-damping machines.....	292
14 two-head second drawing frames.....	2,016	4 measuring machines.....	242
14 roving frames, 64 spindles each.....	6,227	4 calenders.....	2,280
42 double spinning frames, 72 spindles a side.....	11,642		
6 roll-winding machines, 80 spindles each.....	792	Total.....	£41,708
		United States currency.....	\$208,000

The foregoing machinery will turn out 315,000 yards of burlap cloth, 48 inches wide, per week of sixty-six hours; approximate weight, 236,250 pounds.

To use up the waste material and low quality of raw jute the following machinery would be needed:

Cost of waste teasing, dust shaking, carding, spinning, winding, beaming, and weaving machinery for 30 looms to manufacture cotton bagging 50 inches wide.

Articles.	Cost.	Articles.	Cost.
2 teaser cards.....	£564	2 cop winding machines, 30 spindles each.....	£157
1 dust shaker with hopper feed.....	115	1 yarn beaming machine with banks.....	110
2 breaker cards.....	484	30 looms.....	975
2 finisher cards.....	512		
2 two-head first drawing frames.....	288	Total.....	£5,562
2 two-head second drawing frames.....	288	United States currency.....	\$27,000
2 roving frames, 64 spindles each.....	889		
4 double spinning frames, 50 spindles a side.....	1,180		

The above machinery will turn out about 44,800 pounds of cotton bagging up to 50 inches wide per week of sixty-six hours. Yardage will depend on grade of fabric.

The cost of extra supplies and furnishings in England required would be as given below:

Mill furnishings (cost in England).

Articles.	Cost.	Articles.	Cost.
Belting.....	£2,150	Picker straps.....	£75
Spindle banding.....	30	Spare loom beams.....	375
Sliver cans.....	630	Leather laces.....	60
Bobbins.....	410	Spanners and nut keys.....	10
Reeds.....	65		
Combs.....	100	Total.....	£4,015
Shuttles.....	60	United States currency.....	\$19,500
Pickers.....	50		

To the foregoing must be added freight, insurance, and other charges from Glasgow to New York on machinery and other stores as per estimates, £2,100; duty on machinery and stores in New York, £23,079, making a total of £25,179, or \$122,000, making the total cost for furnishing the required machinery for a mill in the United States \$370,500. This would be increased by the cost of building, power plant, shafting, and warehouses.

I send a machinery plan and elevation of a one-story building covering the organization herein described, which gives very full details and shows the horsepower required for each section of machinery.

Altogether, it would seem that we ought to be able to at least enter into this trade to the extent of supplying our own large and constantly increasing requirements.

[The samples and plan furnished by Mr. Whittam will be loaned manufacturers or their accredited representatives.]

CONDITIONS AT DUNDEE.

PROSPEROUS YEAR FOR THE DUNDEE INDUSTRIES.

Consul John C. Higgins, in his annual review of the trade and industries of Dundee, furnishes the following information covering the year 1906:

The year 1906 was one of unusual prosperity for the staple industries of Dundee. A steady flow of business at home, and more particularly abroad, was maintained, and this was especially so with the United States, the exports declared at this consulate therefor being \$1,383,000 in excess of the exports of 1905. The enhanced value of burlaps accounts in some measure for this increase, but the volume of trade was also much larger.

At the beginning of the year jute prices stood at figures much above normal, and the general expectation was that the near future would see a return to ordinary levels; but, instead of declining, rates continued to advance. The following statement shows the prices per ton which prevailed in January and December for the several qualities:

Month.	Block D.	Best first marks.	Daisee.	Red.
January	\$116.80	\$93.67	\$90.64	\$85.77
December	180.06	132.61	124.09	107.06
Increase	63.26	38.94	33.45	21.29

The quality of the 1906 crop was better than that of 1905, but complaints of irregularity are frequent, causing resort to arbitration. Excessive moisture is still a source of much annoyance, though there has not been quite so much watering of the jute as in previous years.

GOOD DEMAND FOR YARNS.

Last year was one of unusual prosperity in jute yarns. Spinners were busily employed all the time, and in many cases the demand exceeded the capacity of the mills to supply the yarns required. Every available machine was in use and new machinery put in, while two more mills are in course of erection. All classes of yarns have been in active demand, but more especially the finer qualities, of

which a large proportion was taken by Brazil, while Portugal, and more particularly the home markets, gave an outlet for large quantities also.

The activity in the manufacture of wide burlaps enabled spinners to advance the prices of yarns for these goods. Germany and Belgium came in as large buyers of the common classes, until a point was reached when the supply failed to meet the demand, and many local looms were obliged to shut down for want of material to weave into cloth. Some spinners, who were also fabric makers, found it to their advantage to take their profit upon the yarn itself, and sold it rather than manufacture it into cloth. As exemplifying the increased price of yarn, it may be mentioned that 8-pound fine Rio warp rose from 52½ cents per spindle in January to 85 cents at the close of the year. Spinners have done exceedingly well, and those who held big stocks of the cheap jute of 1905 must have made handsome profits. The outlook is also reassuring, and spinners are booked up for months ahead. For some spins delivery can not be guaranteed before July to September.

JUTE CLOTH.

The jute-cloth manufacturers had a prosperous year, although conditions at the outset were not particularly promising. A demand sprang up in the spring that proved to be the beginning of a steady and increasing trade, which was fully maintained up to the end of the year. The demand during the latter half of the year from the home markets and those of the United States, Australia, and Canada was exceptionally brisk. Manufacturers were enabled to advance prices, which before were too low. In some cases those who were short of yarns in stocks had to stop their looms in order to avoid running them at a loss. Floor-cloth widths, from 72 inches and upward, have been very largely dealt in, and more wide looms are being set up to meet the demand. In this branch, Dundee holds as yet practically a monopoly, at least as far as Calcutta is concerned, where only the more ordinary classes of goods are made. Calcutta does not attempt this class of work. But for some reason, even in the narrower widths of burlaps, Dundee has, during the year, been able to sell against Calcutta, even when Dundee goods were very considerably higher than those of Indian manufacture. Calcutta mills turn out yards upon yards of particular makes of goods which are not infrequently blemished by weaving faults, while Dundee is generally able to supply goods of any dimensions, and of better weave, at the same time making more prompt delivery than can be relied upon from Calcutta.

The year under review has, it is said, marked a higher range of prices for burlaps than has been reached in any year since the American civil war, when many large fortunes were made by Dundee manufacturers who supplied cloth to the United States. At the opening of the year the price of the standard quality of burlaps (10½-ounce, 11 porter, 40 inches wide) stood at the comparatively high figure of 5.86 cents per yard, packed, and at the close of the year at 6.36 cents. In December, 1904, the price was 3.8 cents.

LINEN YARNS.

As the flax used in Dundee is obtained from Russia the conditions prevailing in that Empire have an important bearing on the linen trade of this district, and for this reason the business outlook at the

opening of the year was discouraging. Flax was still at a high price and there was great uncertainty whether or not orders would be filled, owing to the internal troubles in Russia, besides the linen trade itself was in a languishing condition, giving only a limited demand for yarns. This state of matters continued pretty well through the first half of the year. With the advent of the new crop and the consequent weakening of the price of the raw material, a strong demand for wet spun yarns gave spinners the opportunity to advance prices, which continued to rise till they reached a higher level than has been known for many years. Spinners of tow yarns have done well, as there has always been a plentiful supply of tow of good quality to be had at reasonable prices and a steady demand for the yarns. The year taken as a whole has, notwithstanding the depression of the first eight months, been quite a profitable one, and the activity displayed at the close gives a much brighter outlook than has been experienced in late years, spinners being well supplied with orders, giving employment for months to come.

LINEN CLOTH.

The linen cloth has not partaken to its full share in the general prosperity. At the beginning of the year only a languishing business was done, which prevented manufacturers raising prices to a level which would compensate them for the high prices paid for yarns. As the year wore on a steady improvement took place, aided by orders from the Admiralty and war office, while public institutions also furnished a good many contracts for housekeeping lines.

Sailcloth, canvas, and ducks have been very quiet, especially during the latter half of the year, when the production had to be restricted because of the dearth of business. The use of sailcloth in the merchant marine is now much more limited than formerly, but, while steamers are required to carry sails in case of need, even this outlet is considerably restricted, from the fact that whereas an all-flax fabric was formerly supplied to all steamers, a jute webbed material is now being largely employed instead.

The conditions of the home trade at the close of the year gave good prospects for all classes of housekeeping linens, paddings, ducks, etc., while it is anticipated that the foreign markets will be large purchasers of the finer damasks and sheetings. But the high prices of yarns—flax, tow, and cotton—and all tending upward, present a serious obstacle to a profitable trade being done, unless manufacturers can get fabrics to respond to the excessive yarn rates.

WOOL TEXTILES IN ASIA.

THE CHINESE AND JAPANESE FIELD OPENING UP FOR WOOLENS.

To keep the American exporters and manufacturers informed as to the situation in China and Japan and the efforts being made in Great Britain to capture and supply those markets, Consul Walter C. Hamm, of Hull, sends the following correspondence printed in a Leeds, England, newspaper:

There are unmistakable signs of the Far East awakening and of it adopting not simply western ideas, but European methods of dress. India, China, and Japan have all contributed their quota to the present satisfactory state of wool consumption. The following table gives some idea of the English-Chinese

trade in cotton cloths alone, and shows how enormously trade has grown during recent years:

Year.	Yards.	Value.	Year.	Yards.	Value.
1890.....	40,545,100	\$2,972,940	1903.....	96,468,300	\$8,590,550
1895.....	45,521,900	2,935,165	1904.....	130,899,200	13,686,590
1897.....	55,072,700	.....	1905.....	160,286,800	14,970,095
1900.....	89,093,200	7,561,140	1906.....	170,582,300	18,051,305

China until recently bought very little in the shape of wool goods, but travelers state explicitly that there is now a very sensible change coming over huge masses of the population and that largely increased quantities of woollens and worsteds are selling. The following figures show the progress made during the last decade:

Year.	Woollens.		Worsteds.	
	Yards.	Value.	Yards.	Value.
1895.....	2,605,900	\$685,830	10,761,300	\$1,866,460
1897.....	2,314,100	650,406	10,997,100	2,007,325
1900.....	3,331,500	954,345	7,661,700	1,368,515
1903.....	3,166,300	844,285	8,465,900	1,458,720
1904.....	5,961,500	2,426,445	8,489,200	1,605,475
1905.....	7,119,500	4,367,640	6,371,300	1,341,775
1906.....	7,226,600	2,425,795	9,316,100	2,086,465

The most surprising thing in connection with these official figures is that last year the yardage in woollens showed a decent increase, but the value went down nearly one-half. Men in a position to judge tell that as yet only the fringe of the China trade has been touched, and that foreign goods seldom penetrate farther than the areas touched by the waterways, which so far have been the principal means of communication. The rate of progress is bound to be much greater as railways increase, and railway construction is going on with what might be almost called rapidity in a country so slow to move. The door is opening in China for European-made textiles, and a big new market has practically been discovered. Already there are many large cotton factories in China. I can not ascertain whether there are any woolen or worsted factories, but even the cottons produced are of the poorest and coarsest character, and it is questionable if ever factories of decent quality and style will be made. It is certain, however, that as the Chinese come into contact with the western mind the adoption of western ideas and a European style of dress will follow.

JAPAN AS A WOOL BUYER.

Closely allied with the Chinese trade is that of Japan, and developments in that country since the war are all on right lines in the interests of wool growers. For many years Japan has bought some nice parcels of good scoured wools in Australian markets, but a feature of the present season has been the large purchases of good combing greasy merinos as well. This shows that her mills are better equipped than they were and that scouring can now be done. I hardly think I should have mentioned Japan in this connection were it not for the good-sized orders which these last two years have been placed with English wool staplers for good super Down wools. Here again we have proof that Japan is improving its mill equipment and putting down increased machinery. The export figures from Australia to Japan show that only 1,948 bales went forward in the fiscal year 1897, whereas in 1904 the shipments amounted to 7,500 bales, in 1905 to 26,000 bales, and for the fiscal year 1906, 6,700 bales. What the purchases will be this season in Australia is not yet known, but up to the end of February they were already estimated at 25,000 bales, and the fact that Japan is now purchasing greasy wools is highly significant.

These facts and figures can only point to one conclusion, namely, that the Far East offers a fine field for exportation in wool, woollens, and worsteds.

The foregoing correspondence, Mr. Hamm adds, should be interesting to American manufacturers and exporters of cotton and woollens, and spur them to make the effort to share in the broadening Chinese and Japanese markets.

DRY GOODS IN MEXICO.

THE UNITED STATES SELLS A SMALL QUANTITY—CARELESS PACKING.

Consul-General P. C. Hanna reports that the dry goods merchants of Monterey buy comparatively only a small portion of their goods from the United States, the following being the reasons:

This is due not so much to the difference in prices between goods manufactured in the United States and those made in other countries as it is to difference in quality and adaptability to the Mexican market. In some lines, such as shoes, the American manufacturers have a practical monopoly of the trade, the only rival being Spain, where a certain class of ladies' shoes are made in style not yet imitated in the United States and sold at prices below those of American manufacturers.

A considerable quantity of sheeting is imported from the United States, while the cheaper grades of cotton goods are manufactured in Monterey and by mills in the southern part of the Republic. The United States also sells here largely ducks, silk thread, silk ribbons, collars, shirts, ties, suspenders, and corsets. In woolen goods, American manufacturers have not been able to compete with European countries, though they have recently sought to enter this market. As a general thing, the woolen goods of England have the call on the market, though woollens made in Germany and Spain are now meeting with favor.

Some dealers say that they can actually buy cheaper from the United States, but the factories there do not produce the best goods for this market. Recently there have been some sales of American cotton and woolen mixed goods, but merchants do not find it profitable to deal in such goods, as all weavings containing wool are classed as woolen goods by the Government and pay the same duty, thus making it possible to sell pure woollens of the best make at prices only a little higher than those for which mixed goods can be profitably handled.

SILKS AND COTTON GOODS REQUIREMENTS.

American manufacturers are doing some business in silks, but the greater portion of such goods are brought from France and Spain. American silks are found to be of superior wearing quality, though the finish, it is claimed, is not equal to that of French silks. The chief objection to American silks is that they are too heavy to meet the demands of the trade here, which applies to nearly all American goods. Light and showy goods are in demand, partly on account of the climate and partly because of the characteristics and tastes of the people, and as yet the American manufacturers have not taken these sufficiently into consideration.

European manufacturers seeking markets for their wares in this country send agents whose duty it is not only to sell what they have in stock, but to find out what the people want and supply their demands. Some dealers here say that as a usual thing the American manufacturer offers what he has for sale, and if it does not suit the trade he quits the market. Recently a Monterey merchant bought largely of cotton goods from a certain Massachusetts mill. It was

of a class of goods that had been passing under the tariff charge limiting the number of threads to 30 per centimeter (0.3937 inch). When the last order placed by the local merchant reached the border it was found, contrary to the declaration, to contain more than 30 threads to the centimeter, thus calling for a higher rate of duty and a fine amounting to three times the duty. Not discouraged, the merchant offered to place another order with the factory if it would guarantee that its goods would not exceed 30 threads to the centimeter. The factory replied that it could not do so. The same request was made to an English manufacturer, who readily complied, and now the local merchant is placing all his orders for such goods in England.

FRANCE LEADS IN SALES OF DRESS GOODS.

In dress goods France is almost without rival in this part of Mexico. French dress goods, like French millinery, have so long been bought here that it has almost become a habit. Some merchants claim that French designs are much more suitable to the tastes of the people and they have found it impossible to sell the goods made in other countries, but it is possible for American manufacturers to compete if they will study the requirements of the trade and supply the necessary quality and designs. There also is a possibility of Americans supplying fans and parasols, which now come almost wholly from Spain, and while beautiful in design, are lacking in durability. Cotton thread, now almost entirely bought from England, is another line in which American manufacturers might enter Mexico, the only necessity being that of meeting English prices and terms.

In dry goods, as on other things, European dealers give longer terms of payment, which influences some firms in placing their orders. Most of them give almost unlimited time to responsible firms, charging interest at the rate of 6 per cent per annum on the invoices.

In dry goods, as in other lines, there is complaint of careless packing by American factories from whom goods often are received in a damaged condition. It is true that the American does not usually charge for packing, as the Europeans do, but the Mexican merchant appears willing to pay the extra cost of packing if he is assured of getting his goods in perfect condition. [The names of the principal dealers in dry goods at Monterey are filed for inspection at the Bureau of Manufactures.]

FABRICS FOR BARBADOS.

GREAT BRITAIN LEADS IN SALES—TASTES OF THE PEOPLE.

Relative to the importation of cotton fabrics into the island of Barbados, Consul A. J. Clare, of Bridgetown, gives statistics not later than 1905, as follows:

Cotton, silk, linen, and woollen manufactures amounting to \$809,471 were imported during 1905. Of this amount Great Britain furnished \$774,385 worth; the United States, \$30,362; Canada, \$2,318; British West Indies, \$2,149, and all other countries, \$257.

The principal lines of cotton goods imported are calicoes, cambrics, denims, drills of all description, ducks, printed calicoes, domestics (unbleached), india and victoria lawns, and flannelettes, all of which average from 26 to 36 inches wide, lengths running from 40 to 80 yards. Weights vary according to price and would be very difficult to determine. The proportion of dyed and printed goods in general use are about equal. There are no patterns of goods or trade-marks to be avoided. American cotton goods are popular, but differ from the English in the finish, that is, there is a stiffening or a better body in the latter which is wanting in the American product. There is practically no difference in the thread, but the consumers are so accustomed to the English finish that it leads them to believe that the English article is better than the American, which is not the case. The most noted difference between American and English cotton goods, in some lines, is in the width, which is from three to four inches in favor of the English. It is claimed by some of the importers that the American ducks, drills, and denims can not be beaten in the markets, and of late years these lines are being exclusively imported from the United States by certain houses.

Woven or knit goods, tweeds and serges for gentlemen, and cashmeres, cobourghs, meltons, and figured stuffs for ladies, are exclusively imported from the English markets. The imports from the United States for the year 1905 are almost three times as much as in 1901, and there is no reason why the trade should not be materially increased. When American manufacturers begin to sell direct to the importers the trade will be enormously increased. To do this the mills must send out their own travelers to see what is required and study the wants of the consumers. The rest will be easy.

There are no discriminating duties imposed on American goods imported into the island of Barbados. The duty on cotton goods is 10 per cent ad valorem. The exports to the West Indies, other than Cuba, increased over \$400,000 in 1906. [The names of the principal importers of cotton goods at Bridgetown are listed at the Bureau of Manufactures.]

ANGORA MOHAIR.

TURKEY ENCOURAGING THE IMPROVEMENT OF WOOL PRODUCTION.

Writing from Smyrna, Consul E. L. Harris says that the mohair of Asia Minor is known and prized the world over for its soft and silky texture. He describes the trade in mohair and the efforts of the Turkish Government to build up the industry as follows:

The best qualities come from the provinces of Angora, Kastamuni, and Konia. The number of goats in Asia Minor, from Smyrna to the Persian borders and from Arabia to the Black Sea, is roughly estimated at 3,000,000. No exact statistics are to be obtained as to the quantity exported every year, but the value is generally estimated at \$3,520,000. With the exception of small quantities brought to Smyrna, the mohair which finds its way abroad is usually sent to Constantinople and thence, through the medium of English merchants and on English ships, to England.

English merchants have always, more or less, been able to keep a firm hand on the mohair market. In so doing they have been able to inflict incalculable damage upon the industry in Turkey. In spite of all the efforts of the Turkish Government to prevent it, the Angora was smuggled out of the country and successfully reared on the veldts of Cape Colony and Natal. In spite of the application of the severest prohibitive measures the Turkish authorities were powerless to do anything in the face of such exorbitant prices as were paid the peasants for their flocks, \$2,500 having been given at times for a single goat.

In this way English producers were soon able to grow in South Africa a fine grade of wool which successfully competed with the Turkish product in European markets, but the setback which wool-growers in South Africa received during the late war in that country enabled the industry in Asia Minor to get a new lease of life, and more serious attention is now being paid to improved methods. The Turkish Government has been giving assistance of late in establishing model stations for the improvement of the breed on a rational and scientific basis, as it is claimed that Angora wool in softness, length, and durability is superior to that produced in South Africa. There is a movement on foot at present in Asia Minor to start factories in the woolgrowing districts in order that the old primitive methods of utilization may be superseded. This will be done with a twofold object in view, namely, the creation of a means of employment for the people of those districts and an outlet for the product at home which will render the industry, on the whole, less dependent upon the foreign demand.

BRAZILIAN FIBERS.

DEVELOPMENT OF NATIVE PLANTS FOR FABRIC AND PAPER MAKING.

Consul-General George E. Anderson writes as follows from Rio de Janeiro concerning the development of fiber plants in Brazil:

There is considerable activity in fiber-growing enterprises in Brazil. A \$350,000 American syndicate has a concession from the State of Minas Geraes for the growth of pita, a plant of the cactus family, for fiber purposes. It has a number of valuable privileges in its contract with the State government. The greatest drawback it faces seems to be in the matter of transportation. There has been considerable interest here in the possible development of the scheme to manufacture coffee bags from guaxima, botanical name *Urena lobata*. The attempt here has been to manufacture the bags from what is known as aranina, an upcountry species of the guaxima. A firm of São Paulo and Santos has a privilege from the government for the manufacture of the fiber, but it is said the results have not been satisfactory. The fiber has been used in the making of coffee sacks, but two-thirds jute fiber has been found necessary. The process is costly.

The development of the *Canhamo Braziliensis perini*, or Brazilian linen plant, during the current season seems to present no change

from what has been expected and described in previous reports. There will be about 2,000 tons of the fiber to work with this year from the plantation where it is being developed. Of this it is estimated that from 400 to 500 tons will be fine fiber for various high-grade uses and the remainder refuse fiber suitable for paper making. A sample is forwarded of paper made from this refuse, by hand in lieu of proper machinery [sample in Bureau of Manufactures]. The waste fiber is bulky and the chief obstacle to its export for paper making is possible high freight cost. It may be that the cheaper plan would be to ship pulping machinery here and export the pulp, although in this connection the high cost of all such work here is to be considered. The fiber is unquestionably a success, and there only remains some practicable means of handling it to the greatest advantage to open up its vast possibilities.

INDIA FIBER HANDLING.

SIMPLE MECHANISM FOR DECORTICATING RAMIE.

Consul-General W. H. Michael writes from Calcutta that the cultivation of rhea, or ramie, is something that should interest the United States, as it is a superior fiber to jute, and that experiments could be made in the Philippines or Porto Rico. He adds:

The greatest difficulty heretofore in putting ramie on the market has been the slow and expensive process of degumming or decortivating. This has been overcome by the discovery made by a resident of India [name on file at Bureau of Manufactures], which is so economical and quick that a local syndicate will soon be in position to place rhea fiber on the market in large quantities without the use of any of the patented, high-priced machines for degumming. The new process does away with all expensive machinery and is said to be simple, and accomplishes the work easily. The growers can haul the fiber to the railway station and have it treated, or the expense of the haul may be avoided by treating it on the field where it is grown.

A leading trade paper here refers to the subject as follows:

The fiber so prepared has none of its strength taken out of it by the process, and rhea is much stronger than either flax, jute, or cotton. It can be spun with existing flax or jute machinery, so no special mills will require to be erected for its manipulation. A great impetus will now be given to rhea cultivation, seeing that the decortivating or degumming process can so easily be accomplished by cheap hand labor. It will now become one of the regular staple crops of India, and the fiber markets of the world will absorb any quantity that can be given to them.

FOOT WEAR.

MARKETS AND MANUFACTURING.

AUSTRIA-HUNGARY.

AMERICAN FORM THE FAVORITE—IMPORTS FROM THE UNITED STATES.

Special Agent A. B. Butman makes the following report on the foot-wear industry in Austria-Hungary and Germany:

The industry of shoemaking is one of growing importance in Austria-Hungary, the factories of the dual monarchy numbering 532, situated principally in Austria proper and Bohemia. Only a small proportion of these factories are fully equipped with modern shoe-making machinery, although such equipment is being gradually accomplished. About 60,000 pairs of shoes are daily manufactured, the largest output of any single establishment being that of Turul Schuhfab Temesvar, where the daily production is 2,000 pairs, and 500 workmen are employed. The total number of persons employed in the shoe industry throughout the country is estimated at 80,000, while the average output of all factories with modern equipment is about 380 pairs per day each. Of the total daily manufacture 30,000 pairs are shoes of the cheaper quality, nailed shoes and slippers, 20,000 pairs are pegged shoes of better quality, and 10,000 pairs are welt and turned shoes. A large amount of hand-sewn work is still done, although the retail dealer obtains a higher price for the machine-made than for the hand-sewn product; the former selling at from \$4.06 to \$6.09 the pair in both men's and women's goods for better grades.

The American shape is the favored form and patent leather, vici kid, and box calf the principal leathers used in the manufacture of men's foot wear; for women's shoes a last of French design is generally employed and a light tan vici kid is much favored for fine goods, also patent kid and box calf. In detail of workmanship the Austrian-made shoe stands high, resembling in finish the fine French product; this is especially true of women's fancy oxfords and slippers. Men's goods are manufactured as nearly as may be along American lines and a good imitation of the American shoe is usually turned out. Austrian manufacturers, striving to reduce importation from other countries and increase their own export trade, have realized the popularity and merit of the American shoe and are as a consequence manufacturing accordingly.

IMPORTS OF AMERICAN GOODS—TARIFF RATES.

The importation of boots and shoes from the United States into Austria-Hungary for the fiscal year 1904 was 6,991 pairs valued at

\$16,458; 8,880 pairs at \$21,423 in 1905; and 20,277 pairs at \$42,094 in 1906. These figures are conclusive proof of the shoe market which Austria-Hungary affords our manufacturers and will continue to afford if the same be conscientiously followed up.

Attractive exhibits of genuine American foot wear are found in the leading cities of Austria and Bohemia. Retail dealers agree in testifying to the popularity of the American shoe which obtains in their several localities, and report ready and increasing sales; the same dealers also maintain that there is a splendid possibility of building up a much larger trade if a shoe of satisfactory wearing qualities could be laid down in Austria to retail at from \$3 to \$3.50.

The customs duty on boots and shoes entering Austria-Hungary from the United States is per 100 kilos (kilo=1,000 grams=2½ pounds) as follows: When weighing more than 1,200 grams per pair, 70 kronen (krone, 20.3 cents); more than 600 and up to 1,200 grams per pair, 94 kronen; 600 grams or less per pair, 106 kronen. The United States enjoys the conventional rate of tariff on shoes with Austria-Hungary. The Austrian consumption of American leather for the fiscal years 1904, 1905, 1906 was as follows:

	1904.	1905.	1906.
Sole leather	\$14,376	\$8,060	\$12,116
Glazed kid	2,675	10,439	3,096
Patent or enameled		294	100
Splite, buff and other upper	32,428	58,964	106,280
All other leather	1,923	2,166	1,815

These figures by no means represent the total amount of American leathers used in Austrian factories, as much is bought indirectly through German and English houses. The hours of labor in the shoe industry are from 7 a. m. until 6 p. m., with one hour's interval at noon. The cost of manufacture averages about the same in Austria-Hungary as in Germany, and in factories equipped with modern shoemaking machinery is figured on the same basis. In my report on the shoe industry in Germany, which follows, detailed tables showing cost of manufacture are furnished.

GERMANY.

MANUFACTURING OPERATIONS AND IMPORTATIONS.

Of establishments registered as shoe factories and employed in the manufacture of shoes there are in Germany about 1,400. A large majority of these would, however, not be recognized as shoe factories from the American point of view. Many of them are only small shoe shops where manufacturing is conducted wholly by hand, or concerns from which material is given out to hand workmen who complete the shoes in their own homes. Many of these establishments might also, perhaps, be better described as little cobbling shops. Of factories fitted up with machinery there are about 600, but it must not be inferred that all of these factories have anything like a full equipment of machinery, much less that their machinery should be regarded as constituting a modern plant. The factories would be

included in this number which have, perhaps, a press and a pair of leather rollers and a sole-sewing machine. Of factories fitted up for the manufacture of welt shoes there are between 150 and 200, some of which operate on a small scale.

The German shoe factories are scattered throughout the country, there being very few centers containing any large number of factories. The principal groups are at Pirmasens, Weissenfels, Tuttlingen, and Erfurt. The average output per day for the whole of the 600 factories mentioned would not exceed 125 pairs each, owing to the large proportion of small establishments. The largest output per day for any individual factory is one at Nürnberg, which is probably the largest in Germany, the output during 1906 having been 10,000 pairs per day. All grades of shoes are manufactured, ranging in retail prices as follows: Men's, 95 cents to \$2.85; women's, 89 cents to \$2.38; children's, 65 cents to \$1.31 per pair in machine made. In hand-sewn work the retail prices are: Men's, \$2.50 to \$5.25; women's, \$2.26 to \$4.28; children's, \$1.77 to \$2.38 per pair.

USE OF AMERICAN SHAPES AND LEATHER.

The characteristic German shape of shoe is broad and, from an American standpoint, clumsy in appearance. American shapes are being introduced, but as yet only to a limited extent and in a modified form, being confined to welt shoes, which form a comparatively small proportion of the total production, and to a very few fine McKay shoes. The principal leathers employed by the German manufacturer are kips, vici kid, box calf, horsehide, and splits. German importations of leather from the United States for the fiscal years 1904, 1905, and 1906 were as follows:

	1904.	1905.	1906.
Sole leather.....	\$2, 145	\$8, 506	\$4, 834
Glazed kid.....	76, 563	85, 561	72, 697
Patent or enameled.....	809	.....	390
Splits, buff, grain, and all other upper.....	719, 118	994, 494	1, 639, 732
All other leather.....	28, 266	42, 380	75, 561

The importation of boots and shoes from the United States during the same years were: In 1904, 166,606 pairs, valued at \$352,619; in 1905, 137,229 pairs, valued at \$327,784; and in 1906, 227,565 pairs, valued at \$387,025.

John G. Simon, Friedrich strasse 174, Berlin, conducts a retail establishment under the name of "The American Shoe Store," where American goods are exclusively handled. This is a large retail store, attractive in appointment, thoroughly up-to-date, and well stocked. I was assured that the business yielded satisfactory returns, that the goods are well liked, and that sales of the same are constantly increasing. Box calf and vici kid are at present the best selling leathers for both men's and women's foot wear, these varying in price from \$4.96 to \$6.82 in each instance. American shoes are also on sale in many retail shoe stores throughout Germany, together with goods of domestic manufacture.

FACTORY COSTS.

The detailed cost of the manufacture of McKay, pegged, and Good-year work follows, the cost being stated in pfennigs per dozen pairs (100 pfennigs = 1 mark = 23.8 cents) :

McKay and pegged work.	Men's.	Women's.	Children's.
	Pfennigs.	Pfennigs.	Pfennigs.
Assembling lasts	5 to 6	5 to 6	5 to 6
Tacking on insoles	5 to 6	5 to 6	5 to 6
Pasting in counters and toe tips	24 to 30	24 to 30	20 to 24
Fastening the upper on the heel seat	9 to 12	9 to 9	6 to 8
Pulling over with machine	10 to 12	10 to 12	8 to 10
Royalty for pulling-over machine	12 to 15	12 to 15	10 to 12
Lasting by consolidated laster	30 to 36	24 to 30	18 to 24
Royalty for consolidated laster	22 to 24	20 to 24	16 to 20
Trimming toe tips	4 to 5	4 to 5	3 to 4
Pounding up by machine	8 to 10	8 to 10	6 to 9
Filling up bottoms, tacking on shank by machine	4 to 6	4 to 6	3 to 4
Welt tacking with welt tacker	12 to 12	6 to 12	4 to 8
Sole molding and channel opening	12 to 14	10 to 12	8 to 10
Sole tacking and heel-seat nailing	15 to 20	15 to 20	10 to 15
Pounding up heel seat and last pulling	16 to 20	16 to 20	12 to 16
Sewing with McKay sewing machine	18 to 24	14 to 18	12 to 12
Pegging with Davey pegging machine	14 to 18	14 to 18	12 to 12
Pegging with other machines	32 to 36	28 to 36	24 to 22
Channel cementing, closing, and leveling	24 to 30	22 to 26	16 to 22
Tacking on welt on the top of heel	3 to 4	3 to 4	3 to 3
Assembling heel pieces, pasting and compressing by machine	12 to 16	18 to 24	12 to 12
Heel attaching and filling up with nails	14 to 18	16 to 24	9 to 12
Slugging top lift with universal slugger	6 to 9	6 to 6	5 to 5
Heel trimming and scouring	9 to 12	9 to 12	6 to 9
Heel breasting	6 to 9	6 to 9	6 to 6
Welt and edge trimming for smooth edge	16 to 22	16 to 18	12 to 14
Relasting	12 to 12	12 to 12	10 to 10
Scouring heel breast	6 to 8	6 to 10	4 to 4
Heel scouring and buffing	12 to 22	18 to 30	12 to 16
Blackening and edge polishing for smooth edge	28 to 32	24 to 28	18 to 22
Scouring bottom and top lift	12 to 16	12 to 14	9 to 12
Buffing bottom and top lift	15 to 20	12 to 18	10 to 12
Blackening heel and polishing	10 to 14	10 to 18	8 to 10
Blackening shank and polishing	10 to 12	10 to 12	.....
Staining half of the bottom with oakalene and brushing	12 to 14	10 to 12	.....
Setting edge by machine, McKay work	9 to 9	9 to 9	6 to 6
Wheeling by hand	12 to 15	10 to 12	9 to 9
Pasting in insoles	9 to 12	9 to 12	6 to 9
Finishing, rubbing off wax, and last pulling	24 to 30	20 to 26	18 to 22
Pegging up shoes (after cleaning)	16 to 18	16 to 18	12 to 16
Total	477 to 606 \$1.14 to \$1.44	460 to 589 \$1.05 to \$1.40	337 to 417 \$0.82 to \$1.00

Goodyear turn work with leather heel.

	Pfennigs per pair.
Channeling insoles to the heel seat, shank skiving and folding edges.....	1½
Channeling soles all round shank skiving and folding edges, 2 pfennigs.	
Pulling over, pasting counters:	
Common work	4½
Better work, with toe tips, 6 pfennigs.	
Patent leather, 1 pfennig more.	
Lasting by machine	2
Royalty for lasting machine	1
Turn sewing	1½
Royalty for turn-sewing machine	3
Pulling tacks, trimming, and relasting	2
Turning and pasting in heel-seat lining	3
Pasting leather insoles and skiving	2½
Putting insoles or shanks, lasting heel seat, etc., finished to the heel	12
Heel attaching by machine	1½
Slugging top lifts	½
Skiving shanks and heel edges	1

Goodyear turn work with leather heel—Continued.

	Pfennigs per pair.
Heel trimming	$\frac{1}{2}$
Cutting of heel breast	$\frac{1}{2}$
Heel scouring and heel-breast buffing	2 $\frac{1}{2}$
Blacking heels and polishing	2 $\frac{1}{2}$
Polishing edges	3
Buffing bottoms and top lifts	2
Bottom staining and brushing	1 $\frac{1}{2}$
Tacks, thread, wax, needles, power, light, repairing, etc.	5 $\frac{1}{2}$
Wheeling heel seat	1
Putting in lining insoles	1
Rubbing down wax and relasting	1 $\frac{1}{2}$
Total (13.8 cents)	58

"Goodyear" turn work with wooden heel.

Channelling insoles, shanks skiving, and folding edges	2
Pulling over, pasting counters:	
Common work	4 $\frac{1}{2}$
Better work, with counters and toe tips, 6 pfennigs.	
Pasting patent leather, 1 pfennig more.	
Lasting by machine	2
Royalty for lasting machine	1
Turn sewing	1 $\frac{1}{2}$
Royalty for turn-sewing machine	3
Pulling tacks, trimming, and relasting	2
Turning and pasting in heel-seat lining	3
Pasting pasteboard insoles and skiving	2 $\frac{1}{2}$
Putting in insoles or shanks, relasting, fixing lining, and finishing to the heel	12
Fixing heel, last pulling, heel attaching, and relasting	6
Edge trimming	1 $\frac{1}{2}$
Blacking edges and top lifts and polishing	3
Buffing bottom and top lift	2
Bottom staining and brushing	1 $\frac{1}{2}$
Rubbing of wax and last pulling	1 $\frac{1}{2}$
Tacks, thread, wax, needles, power, light, repairing, etc.	5 $\frac{1}{2}$
Total (13 cents)	55

"Goodyear" turn work with Countess heel.

Channelling soles, splitting heel seats, skiving shanks, and folding edges	2 $\frac{1}{2}$
Pulling over and pasting counters	6
Patent leather, 1 pfennig more.	
Lasting by machine	2
Royalty for lasting machine	1
Turn sewing	1
Royalty for turn-sewing machine	3
Pulling tacks, trimming, and relasting	2
Turning, fixing heel seat, lining, and pasting	3
Pasting pasteboard insoles and skiving	2 $\frac{1}{2}$
Putting in insoles or shank pieces, relasting, fixing linings, etc., finished to the heel	12
Fixing heel, pasting on heel breast, slugging top lift, and trimming	30
Blacking heels and polishing	2 $\frac{1}{2}$
Heel scouring	1 $\frac{1}{2}$
Polishing edges and top lift	3
Bottom and top lift buffing	2
Staining bottoms and brushing of	1 $\frac{1}{2}$
Rubbing down wax and relasting	1 $\frac{1}{2}$
Putting in lining insole	1
Tacks, thread, wax, needles, power, light, repairing, etc.	5 $\frac{1}{2}$
Total (20.4 cents)	84 $\frac{1}{2}$

"Goodyear" welt work—Men's and women's shoes.

	Pfennigs per pair.
Channeling insoles	1
Channeling insoles (leather)	1½
Making gem insoles	2½
Assembling last and uppers, tacking on insoles	1½
Pasting counters and tips, tacking on uppers on heel seat	2½
Pulling over with machine	1½
Lasting shanks and drawing up linings	1½
Lasting by consolidated laster	2½
Royalty for pulling-over and lasting machines	3½
Pounding up, trimming gem insoles	3
Leather insoles, 3½ pfennigs	
Pulling tacks and tacking on uppers with small tacks	1
Welt sewing	2½
Royalty for welt sewing	8
Inseam trimming, welt beating, bottom filling and putting in shank piece	6
Soles cementing and laying by machine	2
Sole trimming	2
Shank skiving and channel opening	1½
Fair stitching	2½
Royalty for fair-stitching machine	8
Cementing and closing channels	½
Leveling and rubbing down edge of soles	1½
Nailing and trimming heel seats (loose nailer)	1½
Attaching heels (lightning machine)	1½
Royalty for the complete set of heeling machines	1½
Slugging top lifts (slugging machine)	1
Heel trimming (McKay heel trimmer)	½
Heel breasting (Power heel breaster)	½
Scouring heel breast	½
Heel scouring	2½
Edge and shank trimming	3½
Edge setting	3½
Stitch separating with machine (twice)	2½
Bottom and top lifts, scouring	1½
Blackening heels, polishing heels and shanks, seat wheeling	3½
Buffing bottoms and top lifts	1½
Finishing bottoms	1
Brushing bottoms and polishing	2
Separating bottoms and shanks	½
Bottom wheeling by hand	1
Coloring edges	½
Burning edges	½
Polishing slugged top lifts	½
Rubbing down the wax	1½
Relasting	1
Stamping	½
Putting in heel-seat piece	1
Cleaning shoes, treeing and packing up (box calf)	3
Chevreaux, 4 pfennigs	
Total (21.9 cents)	92½

AUSTRALASIA.

INVITING MARKET FOR AMERICAN SHOES AND SLIPPERS.

Writing from Christchurch, New Zealand, Special Agent Harry R. Burrill directs attention to opportunities presented to American manufacturers of foot wear. He says:

Throughout Australasia American-made shoes have attained a widespread popularity that is as gratifying as it is warranted by their superior quality, correct shape, neat, natty appearance, and the

comfort with which they may be worn. Although, as indicated in a previous report, an inferior shoe, masquerading as the best grade, has been exported to Australia and New Zealand from the United States, the reasons for such transaction are well known to the trade and the demand has not suffered to any appreciable extent. As a measure of precaution, however, it would be well in the future to have the name of the American maker stamped on as a guaranty of quality, which would make misunderstanding or misrepresentation impossible.

Several manufacturers of the United States have declined to ship second or third grade shoes when requested, on the ground that they could not afford to export an inferior article bearing their name or trade-mark. The wisdom of this refusal has been repeatedly demonstrated, for by maintaining the standard of their output they have retained the confidence of the Australasian consumers. Those manufacturers who shipped lower grade shoes to this market with a distinct understanding that they should be sold as such, have suffered, for according to importers and dealers who are thoroughly in touch with the situation, instances are not infrequent where retail dealers have obtained first-class prices for second-grade goods. An Australasian consumer may be misled once in this way, but it is difficult to again impose on him, and the blame for the whole transaction usually falls on the manufacturer. Among the trade there is no disposition to censure the American manufacturers, but that evidence of confidence will be of small benefit if the demand for these particular makes shows a decline, whatever the cause may be.

MARKET FOR SLIPPERS.

An investigation of the markets of Australasia shows that the manufactures of the United States are not represented in a highly important branch of the trade. In Australia, and more especially in New Zealand, may be found an attractive market for shoes and slippers made of camel's hair, imitation camel's hair and felt. These goods are imported in large quantities from Austria, Germany, and France and, according to the Australasian importers, there is no sound reason why the United States should not enter the market. The use of these goods is not by any means limited to the working classes, for their comfort, utility, and comparative low cost appeal to all, whatever may be their financial position.

With a view to placing this opportunity for trade expansion before the manufacturers of the United States, samples of the most popular styles on the Australasian markets, together with descriptions and prices at factory, are forwarded to the Bureau of Manufactures. This assortment, although necessarily incomplete, is sufficiently varied to give our boot and shoe manufacturers a fairly accurate idea of what the market requires in this line of goods, and American ingenuity and enterprise may be depended on to supply as complete a variety of patterns and sizes as are supplied by the continental makers if on investigation the proposition appeals to them. The boot and shoe manufacturers of Australasia have not as yet attempted to make these goods, and it is not regarded as probable that the effort will be made, at least for a considerable length of time. England has

tried to compete, but with practically no success. The American manufacturer could therefore enjoy this attractive trade without the handicap of a preferential tariff against him.

PREFERENTIAL RATES AND PRICES.

The Australian preferential trade proposal, which included boots and shoes, is at present a dead letter, because of its conflict with existing treaties, and the New Zealand law gives a preference only to Great Britain and her colonies. Inasmuch as the shoes and slippers under discussion are all imported from the Continent of Europe, they enter these markets under precisely the same conditions as would similar articles manufactured in the United States. It is probable, however, that as a rule the American-made article would have a shade the advantage in freight rates.

The prices shown in the list furnished the Bureau of Manufactures are those charged at the factory, with the trade discounts, which are also indicated. In figuring on the cost of the goods laid down at Australasian ports it would be safe to add 50 per cent, and an additional 20 to 30 per cent will cover their retail price. In the judgment of the importers, dealers, and even the manufacturers of Australasia, this trade opportunity is well worth the careful examination of the manufacturers of the United States, and if it is found that the goods can be made and laid down here at a price that would enable them successfully to compete with those on the market, no time should be lost in making the experiment. It may be asserted with confidence that, quality and price being equal, the Australasian dealers would unhesitatingly declare in favor of the American-made article as against those of continental make.

LOCAL FACTORIES.

Boot and shoe factories may be found at many of the trade centers of Australasia. They are doing satisfactory work and are building up an excellent business, which is certain to increase through the protection afforded by the governments of Australia and New Zealand. It is not believed, however, that the expansion in the trade of the colonial-made shoe will result in a proportionate decrease in importation. And this is especially true of the American-made shoes.

The establishment of Colonial factories, notwithstanding the possible future effect on exports of boots and shoes from the United States, is of great benefit to another American industry. The Colonials are trying to make shoes as near like those manufactured in the United States as is possible, and they believe the best way to accomplish this is to use American machinery in their manufacture. As a consequence Colonial factories are to a gratifying extent equipped with the shoe machinery of the United States and not only this but everything necessary for properly finishing a pair of shoes is imported from the United States.

Every effort should be made by the American manufacturers to protect and strengthen the boot and shoe trade now so satisfactorily established on the markets of Australasia, and an attack on the monopoly in camel's hair and felt goods now enjoyed by the manufacturers of Continental Europe would, it is believed, be a popular and profitable move in that direction.

ENGLAND.

STATISTICS OF AMERICAN GOODS AT LIVERPOOL.

Consul John L. Griffiths, after careful inquiry into the condition of the boot and shoe trade in Liverpool, writes:

On all sides I am told that the sale of American shoes on this market is decreasing, and that compared with the business done in this town a few years ago, the demand for American shoes is small. When asked for the reason, I am told that when American shoes were first introduced in any quantities into this country, about 1893, a demand was soon created, as the style and general appearance, as well as the comfort in fit, were much superior to the English-made shoes. At that time the English manufacturers were using rather antiquated machinery and obsolete methods, and it was not until the demand for American shoes greatly increased that modern machinery and methods were employed, which have resulted in the making of many of the English shoes on what would be regarded as American lasts and in general appearance corresponding very closely to the American type of shoe. When American shoes first came on this market they were unsatisfactory in quality and were not suitable for this wet climate. Numerous complaints were made that the damp penetrated the boots, owing, it was stated, to the fact that the process of tanning in America was quicker and not as thorough as the process in England. This is the reason assigned for the decreased demand. Statistics, however, do not bear out the statement that the importations into the United Kingdom have decreased. I find that the trade commenced in 1893, and that it has been steadily increasing since that time, as shown by the following table:

	Dozen pairs.	Value.
1898	2, 098	\$24, 110
1899	42, 984	782, 330
1902	83, 813	2, 257, 910
1905	90, 239	2, 205, 945

[American export statistics give the exports of boots and shoes to the United Kingdom for the past three calendar years as follows: In 1904, 67,463 dozen pairs, valued at \$1,757,724; in 1905, 75,497 dozen pairs, at \$1,892,515; and in 1906, 75,233 dozen pairs, at \$1,986,816.—B. of M.]

In 1893 only 2,098 dozen pairs were imported, which averaged \$10.12 per dozen pairs, or 92 cents a pair, whereas in 1905 the average was \$23.77 per dozen, or \$1.98 per pair. It is a rather remarkable fact that notwithstanding the statements that the American shoe trade in Liverpool is declining, and the statement holds good as to other towns, that the importations into the United Kingdom steadily increased from 2,098 dozen pairs in 1893 to 90,239 dozen pairs in 1905.

It can be easily understood and explained why American shoes when first imported here did not in quality come up to the requirements of the people. Considering that the average wholesale price of a pair of shoes was only 93 cents, it could hardly be expected that

the best quality of material would be put into them. In conversation with the manager of one of the firms owning factories I gather that the shoes being imported from America at the present time are in every way equal to the English shoes in quality, while as to style and fit they are superior to the English factory-made shoe. It is my opinion that American-made shoes in some instances are sold as of English manufacture, perhaps to meet a local prejudice.

HOLLAND.

CHEAPER LINES WANTED—ENGLISH PRICES GET ORDERS.

Referring to the small trade in footwear which American manufacturers have established in Holland, amounting to about \$11,500 per year for 1904 and 1905 and \$18,140 in 1906, Consul Frank D. Hill, of Amsterdam, furnishes the following report, giving a closer insight into the markets of the Netherlands:

It is advisable to duplicate the German lasts, for the American are not as a rule suited to Dutch feet. The Dutch manufacturers apply themselves to the turning out of a cheap and inferior grade of goods; it would therefore seem advisable to advocate the introduction of a special shoe. One great drawback has been the long delay in filling, or not filling at all, small orders which have been sent to complete numbers which have been sold out. The only remedy for this would be the establishment here of a wholesale distributing station, which would be of the greatest interest to the buyers here and would also greatly develop the sale of the American shoe. This office could dispose of advertising matter, if sent, and it would be advisable to have advertising circulars printed in the Dutch language, and it would also be desirable to advertise in the trade journals moderately, though the latter would not be of much use unless a showroom and distributing station were established.

I have been compelled, very much to my regret, to write as follows just now to an American firm located in Berlin in reply to an inquiry as to my judgment respecting the possibility of their establishing a store here to sell American boots and shoes at retail at \$4 a pair, plus duty:

I received your letter of January 26 duly and have given its contents careful consideration, as I consider the establishment of an American shoe store at Amsterdam, if practicable, very desirable. The duty on shoes is 5 per cent ad valorem. The price at which you propose to sell your product retail would, therefore, be \$4.20. There is no doubt whatever, in my mind, that you would find it impossible to sell shoes at such a price at Amsterdam.

A DEALER'S STATEMENT—AMERICAN RUBBERS.

A firm which imports American shoes and rubbers writes:

We can give you facts concerning only our own business, but we think that these might be given as being descriptive of the business in American shoes of our country in general. This year we only sold two-thirds of the amount of American shoes we sold last year, while our total sales were practically the same. This decrease finds its cause in the enormous rise in the American leather market. In many instances certain lines of American shoes were put out of the market by having the price raised, in some cases, 35 American cents. These lines were always replaced by English shoes. A great many English manufacturers have bought American lasts and American machinery,

and some of them are practically making American shoes. Some of these English manufacturers maintained their old prices when others raised those prices 6 or 8 cents a pair on medium-priced men's shoes. How this is possible we do not know, but the fact is there. For spring and summer 1907 we will only import low-priced American shoes and the fashionable high-class article.

The prospects of trade in American rubbers are very much brighter. The heavy weather and the snow during last winter caused a big trade in rubber footwear, and we found that the American shapes are the best sellers. Many importers and ourselves sold all their stock and will have to replenish before next winter, and this will cause a lively trade for those American firms that can, in a satisfactory way, place their goods on our market. In regard to the American shoes, we would like to say that it is our opinion that as soon as American manufacturers are able to lower the price or the English manufacturers are obliged to raise theirs we will sell as many American shoes as we did before. During 1906 the representatives of three American firms visited our country, but without doing much business.

ASIA MINOR.

OPPORTUNITY FOR SALE OF AMERICAN ARTICLES.

Consul E. L. Harris, after a visit to the leading shoe stores of Smyrna, is prompted to take up again the matter of boots and shoes, and bring the following particulars to the attention of American manufacturers who may wish to do business there in that line:

It would be wise for American manufacturers of boots and shoes to lose no time in taking the necessary steps toward introducing their wares into Asiatic Turkey, as this field is ripe for the adoption of American styles. Any delay in seizing the present opportunity, which consists in a particular craze for American shapes, may mean later on, when a change in fashion takes place, increased difficulties in securing a foothold.

Such is now the demand for the American round-toe shaped boots and shoes that there is hardly a single shoemaker in the city who is not actively engaged in turning out more or less perfect imitations of the American article. Several people in Smyrna send to America for their shoes, notwithstanding the expense and trouble which that involves.

The best imitations of American shoes are now selling between \$5 and \$6 a pair, while the ordinary hand-made shoe sells at an average price of \$4. These prices should allow a good margin for the sale of American shoes, even taking in consideration the exceptionally good work turned out by the local makers.

Manufacturers who would decide to make an effort toward introducing their article in this territory should take up the matter in a thorough manner, as no success can be hoped for otherwise. A man should be sent out to study local conditions and to appoint a reliable and pushing representative well versed in the shoe trade. On the principal street a store should be fitted out with a complete stock of boots and shoes in all sizes and styles, and advertisements would have to be inserted in the local papers.

The ideal way of making a start would be for several manufacturers of such articles as could be sold in the same store to combine and inaugurate a sort of limited department store where nothing but American products should be sold, and in which business would be conducted in the usual American way. Such an undertaking would meet with unquestionable success.

CROPS AND FOODSTUFFS.

THE MEAT TRADE.

GREAT BRITAIN.

IMPORTATIONS AT LIVERPOOL OF ANIMALS AND CARCASSES.

Consul John L. Griffiths, of Liverpool, writes that the imports of live cattle, sheep, sheep carcasses, and quarters of beef into Liverpool from the United States, Canada, the Argentine Republic, etc., show some curious fluctuations, which he thus describes:

Although six more voyages were made in 1906 by the steamers engaged in the trade, live cattle importations dropped from 272,415 in 1905 and 275,209 in 1904 to 259,853 in 1906, a reduction in the year of 12,562. Live sheep show a still greater decrease—from 263,112 in 1904 and 161,108 in 1905 to 88,026 in 1906. On the other hand, the import of sheep carcasses shows a satisfactory though scarcely a compensating increase, the figures being 1,883,734 carcasses against 1,841,092 in 1905, an increase of 42,642. The quarters of beef imported in 1906 numbered 1,588,491, a decrease of 3,699 from 1905, but a substantial increase over 1904. The tendency of late years is distinctly in favor of the dead-meat branch of the trade, due doubtless to the improved facilities for preservation. The fluctuations in the weekly supplies were very remarkable. Live cattle were the most regular, the general average being between 4,000 and 5,000. The number never quite reached 8,000 and was only once below 3,000.

The fluctuation as to live sheep was also very marked. In the month of December two weeks passed without a single arrival, while in one week in May nearly 7,000 were received. The same is true as to carcasses. For six weeks not a carcass arrived, while in two successive weeks considerably over 100,000 carcasses were delivered at this port. Notwithstanding the vast quantities imported from abroad, the numbers landed from Ireland increased. In fifty-one weeks of 1906 768,836 cattle arrived in England, against 743,369 in the corresponding period of 1905. There was a large falling off in sheep, the figures being 656,661, against 700,118 in 1905.

SLAUGHTERING OF ANIMALS.

The humane slaughtering of animals in England has been for a long time receiving attention from the public. Some of the improvements in this city under the new by-laws are that calves which are killed with the knife only must be stunned before they are further dealt with in the process of slaughter. None but efficient men (where efficiency has been ascertained by actual tests) shall be allowed to handle slaughtering implements, and licenses are only granted for a determinate instead of an indefinite period as formerly. The waiting animals must be isolated from all the sights and smells of the actual slaughtering.

TRADE AT MANCHESTER.

AN IMPORTANT CENTER—WHAT DEALERS THERE DESIRE.

Consul William H. Bradley, writing from Manchester, states that competition in the bacon trade has been extremely keen, and wholesalers complain that the margin of profit is reduced to a minimum. He furnishes the following details:

In addition to American shipments, Manchester is the center where heavy supplies of bacon from Denmark and Ireland are dealt with. It is chiefly known as "longcut" bacon; that is, the entire sides of the pig, including hams and shoulders. I am assured, however, that if American packers would take more pains in packing long clear middles, with average weights of 26 to 30 pounds, they would find a still better market than they do for Cumberland. In long clear middles the ribs are taken out, also the blade and leg bones, and the leg cut off close to the breast; it is then ready for rolling on arrival here, and as most of the American bacon is sold rolled, the opportunity for packers is one not to be passed over lightly. One firm which makes a specialty of this class of bacon is able, by reason of the neat packing and convenient weights, to command 73 to 97 cents per hundredweight (112 pounds) more than for ordinary "longcut" with the ribs left in. Of course there are numerous other cuts of American bacon.

In regard to hams, they are roughly divided for this market into American short cut, American longcut, and skinless. Longcut hams are cut long, unfaced, rounded on the butt and the foot taken off below the hock joint. A C's, or, as they are sometimes known in the trade, "Manchester hams," are similar to longcut hams, but cut shorter and rounded on the butt and are more "stumpy" looking than the longcut hams. The fat is well taken off down to the shank, and this class is held to be very economical to consumers. Skinned hams have also a good sale in this center, being similar to A C fatless hams, except that the fat on the back is not trimmed off so close. They are convenient for boiling, and are becoming quite popular with pork butchers and confectioners, being very handy and not too large.

FRESH-MEAT PRICES.

There has been a steady rise in price during the year in American chilled meat. Hindquarters rose from \$11.35 at the opening to \$12.53 at the close of the year, and forequarters from \$7.38 to \$7.95 during the same period. Argentina chilled and frozen was in evidence in the same market and participated in the advanced prices; chilled hindquarters made \$7.95 at the opening of the year and at the close were \$8.52, and forequarters \$6.25 to \$7.91 during the same period. Frozen Argentina hindquarters in January were \$7.38 and in December \$8.52; forequarters in January \$6.92 and December \$7.38. Foreign pork rose from \$11.92 in January to \$15.33 per hundredweight in December, while British showed little change in price. Mutton arrives in the largest proportion from New Zealand and Australia, but Argentina comes a good second. A direct service between Australian and New Zealand ports has been opened up in the later months

of the year, and some large consignments of mutton and lamb have been received per the Manchester ship canal. Generally speaking, most of the foreign meat sold in this market yet finds its way here by rail from Liverpool and London. Inquiries show that the tinned-meat scare did not affect this particular department of the British food supply.

ARMY SUPPLIES.

AUSTRALIANS SEEK CONTRACT FOR CANNED GOODS.

Consul-General J. P. Bray, of Melbourne, reports that the Australian government has been advised that an officer of the British Army Service Corps left London on February 1 for Australia and New Zealand in order to inspect and report on the conditions under which meat is prepared and canned there. Mr. Bray continues:

A determined effort is being made by the Australian authorities to induce the British Government to give these States the first chance in the next contract for the supply of canned meats for the army, and this visit of an expert is the outcome of the negotiations. An interesting return just made available shows the purchases of foreign and British colonial preserved meats for the British army for the past seven years to have been as follows:

	British colonies.	Foreign.
	<i>Pounds.</i>	<i>Pounds.</i>
March, 1899, to May, 1902.....	16,500,000	31,500,000
1903 to 1904.....	400,000	1,250,000
1904 to 1905.....	52,000	1,000,000
1905 to 1906.....	280,000	1,500,000
April, 1906, to February, 1907.....	26,988	2,000,000

The remarkable decrease from 1902 is due to the cessation of hostilities in South Africa.

SCOTCH MARKETS.

PACKED GOODS WILL SELL BETTER IN GLASS.

Writing from Dunfermline, Consul J. H. McCunn says that the disclosures relative to packing methods at Chicago greatly injured this trade there. His report continues:

This is the universal report of merchants here, who tell me that sales have fallen off to the extent of 95 per cent. It is not only the American products which are tabooed, but the home and colonial tinned-meat industry has also suffered. Of course the home trade is very small, compared to the American. My information is that all sorts of tinned meats have suffered. Even for tongues, which one would expect to be in a different position, there is practically no demand, and many dealers fear that the trade will never assume the same proportions again. Tinned salmon has suffered, though not to

the same extent; and where cuts of salmon are preserved whole there is a slightly better demand than for the broken and mashed-up article. All the other classes of tinned foods have suffered proportionately, including fruits and pickles.

There are dealers here who believe that in time the trade will return to almost its normal condition. It is generally believed, though, that goods formerly tinned will sell better in glass in the future. I am strongly of the opinion that the exaggerated statements on the subject of the American packing industry that appear from time to time in British papers, copied largely from American books and papers, are doing more to retard the restoration of the canned-food industry to its former position than all other factors combined.

SPAIN.

INCREASED TRADE IN CANNED GOODS, ETC.

Consul-General B. H. Ridgely, of Barcelona, reminds exporters of the big advantages obtained for American tinned beef and mutton by the terms of the new commercial treaty with Spain. He states:

These products now pay but 4.8 cents per kilogram (2½ pounds) instead of 7.7 cents, as they would have paid in the absence of the treaty. The result has been a largely increased demand for American corned beef, tinned dried beef, and other similar tinned products. Barcelona is the chief distributing point for these products on the Iberian Peninsula, and there is a growing demand not only for hams and lard, but for American tinned beef and mutton. These last-mentioned products have had the bad effects of the beef scandals to contend with, but they will win their way into popular favor in the end. Some American breakfast foods are also considerably in evidence.

CANADA.

MEAT AND CANNED-GOODS ACT.

In forwarding to the Bureau of Manufactures a copy of the new Canadian act respecting the inspection of meats and canned foods, which has recently become law, Consul-General Church Howe, of Montreal, states that it was passed with the following amendment to section 12:

Provided, however, That if it be established to the satisfaction of the governor in council that such marking would hinder the sale of any of the articles in the British or foreign markets, he may exempt such articles from the provision of this section.

So far no regulations have been passed under this act, and in the meantime its operations are suspended until August. The administration of the act respecting the adulteration of foods, etc., is in the hands of the department of inland revenue.

FISHERY PRODUCTS.

NORWAY'S SARDINE INDUSTRY.

ITS GROWTH AND PRESENT "PROSPERITY"—MARKET CONDITIONS.

Mr. M. M. Langhorne, chargé d'affaires of the American legation at Christiania, forwards a translation of an article on the canned-food industries of Norway. The article was written by the commercial expert of the leading newspaper of that country, and although unofficial it is based upon Government reports, and has an interesting bearing upon the canned-food industries of the United States, dealing particularly with the production in Norway of "sardines" out of sprats. The article follows:

The Norwegian tinned-food industry took a mighty step forward in 1906 and the prospects are now as promising as ever. Since the commencement of 1906 three new factories were started, which have contributed their share to the preparation of the much-appreciated sardines, and it seems that they have all found purchasers of their products. The larger factories are continually enlarging their plants; the ancient custom-house at Stavanger has, for instance, been appropriated as storehouse for one of the concerns. The sprat fishing has been somewhat more favorable in 1906 than during the foregoing year; however, owing to the lively demand, prices have been unreasonably high, the average price being about \$1.60 per bushel and above. The result of the fisheries is about 112,500 bushels. Of these, about 75,000 bushels were prepared as sardines, the remainder as anchovies, etc., though owing to the high prices of sprats the supplies prepared as anchovies were comparatively small. Certain lots fetched even up to \$2.97, which, if one adds the transport expenses and the commission paid to the commission merchants, etc., equals \$3.20 per bushel and more. The quantity put up during 1906 amounts probably to about 15,000,000 of cans, representing a value of about \$1,300,000. Of olive oil, there has been used from 450,000 to 500,000 kilos (kilo, 2½ pounds), at 1 kroner (\$0.27) a kilo, and of puree of tomatoes about 60,000 to 70,000 kilos, at 0.40 kroner (11 cents) the kilo.

NEW INDUSTRIES DEVELOPED.

There have been started two factories for the manufacture of sheet-metal packing plates; three others for the manufacture of boxes; one for the manufacture of wires and nails, required, respectively, for the keys attached to the cans and for the nailing of the boxes. Further, several mechanical workshops for the construction of different kinds of machines, especially folding machines, coopers' shops for the manufacture of anchovy casks, etc.; also three lithographic establishments which furnish everything in the way of labels, cards, etc., for the advertisements, etc.

Inventions in this line have also of late assumed great dimensions in this country, and most of the folding machines, etc., used, as well as the patented contrivance for opening the cans, are not only of Norwegian workmanship, but even the outcome of Norwegian ingenuity.

JAPANESE COMPETITION—THE MEAT SCANDAL.

The Japanese are also commencing to compete with us in the sardine industry. In consequence of the failure of the American fisheries, they have succeeded in introducing no small quantities of sardines into the American market. This will hardly, even if it should go on, exercise any influence on the market for our produce. A couple of Japanese visited this country last autumn in order to study the machines and the methods employed, but were, as far as we know, not admitted to any of the factories.

The Chicago meat scandal, which in the opinion of most people should have redounded to the profit of our native tinned-meat industry, had rather the opposite effect, as people got frightened with respect to all kinds of tinned goods. It was even rumored that in England people would not buy the biscuits of a well-known firm for no other reason than that they were packed in tin boxes. Fortunately this dread of tinned goods was only of short duration and had little influence on the sale at large.

PURE-FOOD LAWS.

Of more detrimental effect, however, are certain laws which have been voted in different countries. This was the first consequence of the Chicago meat scandal. The American Congress, for instance, passed a pure-food law prohibiting the manufacture, importation, and sale of food products which are either adulterated or bear a wrong label—a law which, under the last category, may exclude our sardines. It is, however, to be hoped that the application of the said law to our sardines may be prevented. The question will soon be decided, and on this particular point a strong opposition has been raised. Should this latter have to give way it would be a heavy stroke for the tinned-goods industry. So far, the produce may be shipped as before until October next.

In France a similar law has been promulgated, and it appears that quite recently such a law has also been voted in Australia and the Cape colonies. These laws will, if it comes to the worst, have as a necessary consequence that in these particular markets we will have to sell our sardines under another label, which will probably cause a decrease in the trade, so far as these countries are concerned, until the public gets accustomed to the new label. This will hardly exercise any appreciable effect on the tinned-goods industry, but it may be rather burdensome while it lasts. Especially it will be a great inconvenience to have all labels, etc., changed, which will cause the large factories to suffer, particularly as their stocks of such labels are considerable. Notwithstanding all this, one will not be far from the mark in prophesying that the tinned-goods industry has undoubtedly a great future to look forward to.

METHODS IN THE LEVANT.

OPENING FOR THE INTRODUCTION OF AMERICAN APPLIANCES.

Consul Ernest L. Harris, of Smyrna, reports as follows concerning the fisheries industry of the Levant and the opportunities for the American manufacturers to secure a portion of the trade therein:

The fisheries of the Levant play an important part in the wealth of the population. They are also a source from whence considerable revenue accrues to the Empire, for the reason that a tax amounting to about 22 per cent of the estimated value is levied on all fish caught. Owing to the absence of salmon and the difficulty of obtaining access to any of the streams in the interior of the country where trout and other game fish exist, there is no market for rods, artificial baits, flies, and the many other accessories which form a part of the American and European angler's outfit. On the other hand, there is a very large market for all the appurtenances used in deep-sea fishing. As a general rule, hand lines are made of horsehair—black by preference, on account of its greater strength—and they are imported chiefly from Russia. A small quantity of nets are woven locally, usually by hand, into certain lengths, and then knotted together.

Artificial baits are not used in the deep-sea fisheries of this region. The water being very clear, the end of each line is furnished with a long flight of silkworm gut, generally imported from London, but of Spanish origin. Hooks are nearly all imported from the United Kingdom. Tinned Kirby and round bend flatted hooks command this market. Ringed, Limerick bend, and tapered hooks, to be bound on gut with thread, are seldom imported. Untinned steel hooks of the variety first described are also largely imported and are used in casting. The sinkers are burnished with quicksilver to attract the fish, and are cast either with or without bait. The use of trawl nets, except for shellfish, is prohibited in territorial waters. Great use is

made, however, of trammel, gill, and seine nets. On account of the low price of labor, it is found cheaper to import soft laid cotton thread and have it netted locally by women. There is also a considerable import of twisted cord suitable for the making of long lines.

American manufacturers of these articles would do well to turn their attention to this market and endeavor to obtain a share of the trade which at present is entirely dominated by England.

CEREALS.

DUTCH MARKETS.

POSITION OF AMERICAN CORN, WHEAT, AND FLOUR.

Consul Frank D. Hill, in his annual report from Amsterdam, reviews the extensive grain and flour trade of that center, and the situation as it affects American exports:

The year 1906 was not a favorable one for the grain trade of which Amsterdam and near by Zaandam are the center, and which is a very important business here. Speculation accounted for the failure of many grain dealers. The most important article in this market is maize or corn, of which there were imported last year 49,600 lasts (last=4,256 pounds), against 30,000 lasts the previous year. [Export statistics show shipments of 12,575,169 bushels of corn from the United States to Holland during 1906, against 10,332,218 bushels in 1905 and 5,190,035 bushels in 1904.—B. of M.] The American trade in this article was demoralized during part of the year owing to the uncommonly bad quality of the first shipments.

For the importer the trade with the River Plate is said to have been more profitable than with the United States. A considerable supply of Java maize found its way to this market. From the Danube and South Russia no maize was received this year, their shipments having without exception been sent to Rotterdam. Oats were an important article in the grain trade in 1906. Barley, mainly from Russia and the Danube, brought at the beginning of the year, for the commoner sorts, \$52.26, rose to \$54.27, and then fell to \$45.02; the lowering of the German duties caused the fall. The trade in rye was in a bad way during the whole year. Imports were mainly from Russia and the Danube. Wheat, besides the domestic trade, was confined chiefly to shipments from Dantzig and Königsburg.

COMPLAINT OF AMERICAN GRAIN CERTIFICATES.

In order to take action on the numerous complaints as to inferior grain shipments, representatives of Dutch, German, Belgian, Danish, and Swedish chambers of commerce met in Berlin on December 12 and voted to reject American corn certificates and demanded a new grain contract. Although the whole matter of the remedy for a situation which is a great menace to our grain trade is a question for experts, yet it is suggested that uniform national grain standards established by a Federal grain-inspection law would meet the difficulty. The gist of old and new conditions are embodied in the following South Russian contract:

Old conditions.—Five per cent, more or less, may be shipped, to be settled at invoice price. Sound delivery *not* guaranteed. Sea damage for buyers' account, as far as same is not covered by insurance. Lighterage for buyers' account. Samples to be taken on board. Natural weight fixed on board per hectoliter. Nothing stated in case seller does not fulfill his contract. In case of stoppage of payment nothing fixed. Friendly arbitration, the result of which generally was that buyer was the loser.

New conditions.—Two per cent, more or less, at invoice price plus 3 per cent at price of the day (bill of lading date). Sound delivery is guaranteed. Sea damage for sellers' account, even if same is not paid by insurance. Lighterage for sellers' account. Samples to be taken on board, to be sealed by both parties. Natural weight fixed on land per automatic 20 liters (1 liter dry measure = 0.908 quart) scale. Fixing of allowances in case of deficiency of natural weight. Fixed what buyer has to do in such a case. Stipulated in such an eventuality what the other party has to do. In case of arbitration both parties to choose an arbitrator out of a list made by the local committee of the grain trade and this committee to choose an umpire.

EXTENSIVE FLOUR SALES.

Generally about 3,000,000 bags (of 110 pounds) of American flour in lots of 300 each, covered by single bills of lading, are imported annually into the Netherlands. Amsterdam is the market where a dozen large firms are engaged in importing and selling American flour. About 75 per cent of flour imported here is "clear" flour, the grade below the "patents," which is here blended with other flours. Flour is not sold here by contract, there is no association contract, and arbitrations are rare, differences being almost always settled in a friendly way. The importance of the Dutch market can not be exaggerated. Great Britain and the Netherlands are the heart of our market in Europe. Happily agitation for a duty on foreign flour is a thing of the past. The Netherlands now import more flour from the United States than all the remainder of the Continent, and Amsterdam, with its purchases last year, according to United States Treasury figures, of \$5,600,000 worth of American flour, ranks next to London as our premier market.

It must not be forgotten that the market for our flour is a gradually narrowing one. Chile and Argentina have curtailed our South American markets, and China, Japan, and the East generally will fall in line with greater home production and doubtless in time the Cape of Good Hope too. The tendency everywhere is to admit wheat free or impose a small duty on it and put high duties on the manufactured product. Of course the time will come, unless all predictions fail, when we shall not export wheat and flour; but that is not at hand at present. It behooves us, then, not to endanger our present Dutch market by committing avoidable errors. The Dutch milling is not dead, as the mills have an output of over 6,000,000 bags a year. American flour does not, however, directly, like Belgian flour, compete with the product of Dutch mills, being used as a blend on account of its superior strength. The prospects for our continued prosperous business here are very bright. American millers must regard three things, viz: Quality must be up to standard, must not be close to Dutch domestic prices of home-made article, and delivery must be regular.

REGISTRATION OF BRANDS—A LOCAL LETTER.

There was noted some trouble between American millers and Dutch agents during the past year in the American flour press at home regarding the registering of American flour brands in the importer's

name, so that if the home people wish to change their agent the American miller is unable to continue to sell the same brands here. A case of this kind is now before this office. Registration of trade-marks is granted under Dutch law to the first applicant. The Netherlands give to registrants of marks in the United States four months from the time of application there, and applications thus made at Washington will be given a preference here. There is a limited period here within which the right to registration may be contested, but foreigners need not first register in their own countries. A local correspondent writes to me as follows respecting American flour trade in 1906:

From the beginning of 1906 the market went slowly lower. The season was a regular one. The quality of the baker flour was not found as good as usually. In the middle of the year the prices were influenced by the expectation of a large new crop. Indeed the new crop opened with moderate prices. From July the prices dropped regularly. These moderate quotations increased the business, so that in general the trade in American flour was lively. As to buckwheat flour, the high prices ranging in America handicapped a great deal the trade with Holland, so that only a small trade was possible in this article.

[The importers of grain and flour at Amsterdam are listed at the Bureau of Manufactures.]

GRAIN AND FLOUR IN MANCHURIA.

INCREASE IN PRODUCTION—COMBINATION OF MILLERS.

Consul F. D. Fisher, of Harbin, furnishes a comprehensive report on the flour and grain production of Manchuria, concerning which he writes:

Although an immense stream of Chinese immigration has flowed into north Manchuria from the south during the past ten years, only narrow borders along the rivers and routes of travel have been settled. Vast districts in the north and west yet remain only partially explored. The chief occupation of these settlers is agriculture. The valleys of the Sungari, the Mutan Chiang, and the Nonni rivers, together with the bordering plains of northeastern Mongolia, comprising an approximate area of 70,000 or 80,000 square miles, possess a soil and climate especially suited to the production of wheat and other grains. The agricultural possibilities of these districts have scarcely been touched.

At the beginning of the construction of the Eastern Chinese Railway, ten years ago, the Chinese population in all north Manchuria did not number 1,500,000, and was chiefly centered around Kwan-chengtze, Kirin, Petuna, Sansing, Ninguta, Tsitsihar, and a few other small centers. The principal agricultural products were kao-liang (*Holcus sorghum*, L.) or tall millet, hsiao-mi (*Setaria italica*, Kth.) or Italian millet, huang-mi (*Panicum miliaceum*, L.) or the common German variety of millet, wheat, dry-ground rice, barley, maize, and buckwheat. The surplus of these products was transported by cart to the south during the winter, when the ground and streams were frozen and carting was easy. Upon the arrival of the construction forces of the railway, and later the military forces, there was a large demand for grain and flour which it was necessary to supply from abroad, and which, on account of the inconvenient

transportation facilities, was very expensive. The surplus production of wheat in north Manchuria at that time did not amount to more than 500,000 bushels a year. In order to supply the sudden demand, the Chinese were ordered by the military authorities, under fear of punishment, to sell their grain to the supply departments of the Russian army and the railway. This caused a temporary check in the production, but the steadily increasing demand forced up the prices, especially of wheat, which advanced from 20 cents, United States currency, per bushel, in 1898, to 40 and 45 cents, in 1903. As the demand was the greatest for wheat, the production of that grain took the lead.

The production of grain in north Manchuria in 1905, as estimated by the Chinese brokers in Harbin, in bushels, was as follows: Wheat, 21,000,000; kao-liang, 12,000,000; beans, 12,000,000; both varieties of small millet, 13,000,000; barley, 6,000,000; oats, 900,000; and rice, maize, and other grains, 6,500,000.

Of the total production of 21,000,000 bushels of wheat, 13,500,000 bushels were marketed, the balance having been retained in the districts for consumption and seed.

SYSTEM OF CULTIVATION.

Owing to the severe winters and the light snowfall, so that no protection is afforded against frost, winter wheat is not grown in north Manchuria. The Chinese farmer usually plants only such areas as he can attend to himself, seldom employing help. The ground is prepared as soon as it thaws in the spring. The surface is well worked, but deep plowing is not practiced. The grain is planted in rows of stools about 10 inches apart. The weeds are kept out and the surface of the ground is usually stirred twice during the growing season. Only the simplest kinds of plows and other farming implements are used. The harvesting is done by hand, and the wheat in the head is stacked for thrashing during the winter on the frozen ground. The average yield is from 17 to 25 bushels per acre. The grain is thrashed out by stone rollers and by tread. As fanning mills are not generally used, the grain when brought to market is usually very dirty, containing from 15 to 20 per cent of foreign matter.

As the thrashing is a winter occupation, the new grain does not come upon the market until late and after the navigation on the rivers is closed. The smaller farmers send their grain to Harbin or other markets by cart from distances of from 60 to 200 miles, which transportation costs them from 8 to 13 cents per bushel. The farmers whose circumstances permit them to wait usually hold their grain until the opening of navigation in the spring, thereby hoping to secure better prices. Their grain is brought in by steamboat or barge at a slightly less cost than by cart. On account of the high freight rates very small quantities of grain are transported to Harbin by rail. The millers purchase their supplies of grain through Chinese brokers at Harbin, the price ranging under normal conditions from 34 to 50 cents per bushel.

FLOUR-MILLING INDUSTRY.

The flour-milling industry of north Manchuria is an outgrowth of Russia's railway extension and military occupation of Manchuria.

These two branches have been the main sources of the demand for this flour. By the withdrawal of the army the industry received a sudden and severe check. Before 1900 there was not a modern flour mill in north Manchuria. The large demand for flour from the army and railway which developed at that time was supplied from abroad, chiefly from America. In order to obtain a cheaper article and at the same time to develop Russian industries here, the Russian authorities encouraged the erection of flour mills. In August, 1906, at the time of the withdrawal of the main forces of the Russian army, there were in Harbin twelve mills, with a total daily capacity of 6,000 barrels, and since then one of these mills has completed extensions which give it an additional daily capacity of 2,000 barrels. In addition to these there are eight mills in other parts of north Manchuria, having an aggregate daily capacity of 3,000 barrels per day. While several of these mills are equipped with obsolete or unproportional machinery, the plants more recently put up are modern and first class. For instance, the Sungari mills, which have a capacity of 3,000 barrels daily, are equipped with electric power and the latest improved German machinery.

Unfortunately for the industry, nearly all these flouring mills have been built with borrowed capital, on which extremely high rates of interest have been paid. One of these mills, which was indebted on account of advances and other obligations to the extent of nearly \$402,000, was recently bought up by the Russo-Chinese bank for \$51,500.

A FLOUR MILL COMBINE.

Recently the four largest flour milling companies in north Manchuria, the Sungari Company, the Zozulinsky Company, the Kaval-sky Company, and the Myakoff Company, controlling the six largest mills, formed a combine and sent representatives to St. Petersburg to secure additional capital with which to liquidate their obligations, increase their capacities, and carry on their operations. About \$2,575,000 was secured. The combined capacity of these mills at present is nearly 7,000 barrels of flour daily. This will be increased to 10,000 barrels in the near future. It is the intention of the proposed combine to control the flour markets of north Manchuria and Siberia, and also to enter the markets of Japan and China. In order to encourage the combine the Eastern Chinese Railway Company has made a special freight rate for Manchurian flour of 48 cents United States currency per barrel from Harbin to Vladivostok, if for export. In order to place the flour f. o. b. steamers at that port about 14 cents per barrel should be added for shipping, transfer, and other charges. If the flour is for the Vladivostok market the railway company will give a rate of about 56 cents per barrel, which includes freight, etc., charges.

A few of the smaller mills have declined to enter the combine at the present time, partly on account of the doubts they entertain as to the ultimate success of the undertaking and partly for the reason that they consider that the larger mills can not be operated as economically as their own. Their opinion is that on account of the high freight rates on flour to foreign markets and the dirt that Manchurian wheat contains, together with the low percentage of

flour that it gives under the present methods of agriculture, it will be impracticable to compete with other flour in outside markets if they are compelled to pay more than 42 cents per bushel for wheat. The price at present is 49½ cents per bushel. The cost of grinding wheat at one of the large mills in Harbin, which is included in the proposed combine, is \$107.06 per 100 centals (1 cental=100 pounds).

GERMANY SELLS MOST MACHINERY—FARM IMPLEMENTS NEEDED.

A noticeable feature in connection with the flour mills of north Manchuria is that while some of the first mills put up are equipped with American machinery, nearly all the machinery recently installed is of German make. This is the result of the German people having a branch at Moscow, whose representative makes periodical visits to Harbin and keeps in close touch with the flour-milling interests here.

The chief obstacles that appear to be in the way of this flour competing successfully with other flour in the outside markets are (1) the primitive and uneconomical methods of the Chinese farmers in the cultivating of wheat, and (2) the high cost of transportation of the flour. The farmers more than lose the advantage that their cheap labor gives them by not employing modern implements and machinery, not properly working the soil, and not cultivating improved varieties of grain. Their custom has been to sell the best and save the poorest grain for seed. An examination of the wheat as it comes to market here shows that several varieties are cultivated together, some of which are almost worthless and greatly reduce the percentage of flour obtained as well as the yield of grain from the land. However, in view of the closer attention that the Chinese authorities are commencing to show toward the development of the economical resources of north Manchuria, it is probable that these unfavorable conditions will be gradually removed.

This field offers fair opportunities to any large American farming implement and machinery company that would undertake to develop a market here by establishing an agency either at Harbin or Kwan-chengtze, with branches in the principal agricultural centers where it could demonstrate to the farmers the advantages of modern implements. The Japanese and German manufacturers are already finding markets here for cheap plows and other implements, while there is almost a total absence of American goods. It will be of little avail for Americans to attempt to sell such goods here from catalogues or through correspondence, especially in the English language, when the Japanese and German manufacturers have active representatives in the field. The Chinese wish to see the goods and understand how they work before buying. If American manufacturers wish to secure markets here and hold them, they should come here and sell their own goods and not trust to houses here that have no special interests in their affairs to represent them.

AUSTRALIAN SALES.

EXTENSIVE WHEAT AND FLOUR SHIPMENTS TO CHINA AND JAPAN.

Consul-General John P. Bray, of Melbourne, finds that the exports of Australian wheat and flour to China and Japan are growing to large dimensions, concerning which he writes:

In addition to a large increase last year in the exports of flour to China a trade in wheat was established with Japan, which this year shows a tendency to increase. There are three steamship lines in the trade and the volume of business has so far outstripped the regular accommodation that a number of additional steamers have been taken up, which are expected to carry fully 6,000 tons, mainly flour. A steamer from Adelaide will take about 3,500 tons, including a considerable proportion of wheat. A steamer cargo of 4,000 tons of wheat has been engaged to be loaded at Sydney for Japan. It is understood also that another cargo of about 3,500 tons is to be loaded for the east from Melbourne.

Altogether about 17,000 tons are expected to be shipped from Australia by the end of May or early in June under special arrangements, in addition to usual shipments by the regular lines. It is expected in trade circles also that another extra steamer will shortly be engaged by the lines, though no announcement is yet made on the point. The indications, however, are that the Australian trade with China and Japan is likely to become one of magnitude and permanence, and while in part it will consist of wheat for manufacture into flour at eastern ports it is also anticipated that millers will find a considerable outlet for their manufactures.

CHILE NEEDS FLOUR.

SHORT WHEAT CROP—AMERICAN SHORTCOMINGS.

Consul A. A. Winslow, of Valparaiso, reports that according to the best authority obtainable the wheat crop of Chile is short, and a large quantity of wheat or flour must be imported. Mr. Winslow therefore gives the following particulars of this trade:

The wholesale price of flour here now is 9.50 pesos, or \$2.76 United States gold, per 100 pounds, and the duty is 2 pesos Chilean gold, or 73 cents United States gold, per 100 pounds. At present most of the flour comes from Australia and the Argentines. The Argentine flour is very satisfactory and the price is fair.

Formerly flour from the west coast of the United States stood well here, but something like a year ago several shipments of low-grade flour arrived and was put on the market as a high-grade brand. This gave American flour a very bad reputation that will not be easy to overcome. Great attention should be paid to the standard of goods sent into a foreign market. The grade or class should be clearly marked on every article or package, so they may be sold for what they really are. The failure to mark goods properly and poor packing are the chief complaints and are a big injury to our trade.

The few poor lots of flour shipped here last year means the loss of the sale of thousands of tons for the American exporter during this year alone, to say nothing of the future, unless a strong effort is made to reassure the trade here that they will get a square deal. This I feel sure can be done, and it will pay, for the indications point to the probability that Chile will import more flour for several years to come, as wages are high and labor very scarce.

MARKET FOR BARLEY.

FRANCE.

VARIETIES IMPORTED—QUALITY OF AMERICAN PRODUCT.

Consul-General R. P. Skinner, of Marseille, reports on the importation of barley into France, as follows:

Both the two-rowed and six-rowed varieties are imported, but in the statistical returns no distinctions are made between the two. In the south of France some six-rowed barley is used for malting purposes. American barley up to this time has been invariably higher in price than grain from Tunis, Algeria, and the Black Sea countries. At present feeding barley—that is, the two-rowed variety—varies in price from \$2.26 to \$2.41 c. i. f. per 220 pounds. The malting or six-rowed variety commands from \$2.50 to \$2.89. The difference in price between the two varieties does not vary substantially, whatever be the condition of the market.

American barley is equal in quality to the Black Sea product, but is of lighter weight than the African. Undoubtedly a market could be had for both varieties of American barley in this country if the American exporters could meet foreign prices and the relative price of either alone would determine which variety it would be advisable to raise.

The imports of barley into Marseille in 1906 amounted to 35,451 tons, and in 1905 23,188 tons. The following statement gives the imports of barley into France from the several countries for the past two years:

Country of origin.	1906.	1905.	Country of origin.	1906.	1905.
	<i>Tons.</i>	<i>Tons.</i>		<i>Tons.</i>	<i>Tons.</i>
Russia.....	14, 778	46, 639	Tunis.....	34, 841	26, 388
Belgium.....	777	1, 634	Other.....	17, 357	7, 987
Germany.....	287	2			
Turkey.....	1, 761	14, 179	Total.....	113, 489	113, 225
Algiers.....	43, 685	16, 396			

[The name of a leading barley dealer at Marseille is on file at the Bureau of Manufactures.]

UNITED KINGDOM.

THE UNITED STATES SHARE OF THE TRADE—RUSSIA LEADS.

Consul J. L. Griffiths, writing from Liverpool in regard to the imports of barley into the United Kingdom, says:

The importation of barley consisted of both two rowed and six rowed. From 10 to 25 per cent of six-rowed barley is used by most of the English brewers. The quantity used is governed to a considerable extent by the price of six-rowed barley as compared with two rowed barley. The chief importing centers in the United Kingdom are Liverpool, Bristol, London, Ipswich, Hull, Leith, Glasgow, Dublin, and Belfast. The barley imported from California and Oregon is principally used for brewing purposes, while that shipped from the Atlantic ports is used almost exclusively for feed purposes, very little being used for distilling. American barley competes successfully in price with barley imported from other countries, as is

evidenced by the fact that the importations from America into the United Kingdom exceed the importations from any other country with the exception of Russia. The barley used for distilling sells on the English market at from \$6.32 to \$7.78 per 448 pounds, and that used for feed purposes at from \$4.62 to \$5.10 per 400 pounds. Two-rowed barley almost invariably commands a higher price than the six-rowed barley. The difference in price varies from 12 cents to \$1.21, or \$1.46 per quarter, according to the quality. English importers claim that American feed barley is inferior to Russian barley. It has been suggested that the inferiority is due to a lack of care to have the barley cleansed from dirt and foreign matter before it is exported. There will always be a good market in the United Kingdom for the higher grades of six-rowed American barley for distilling purposes similar to that which is exported from California and Oregon, but there will be very little demand for two-rowed barley unless it should prove to be of the very highest quality, as an inferior grade of American two-rowed barley seldom commands more on the English market than the price of feed barley.

The imports of barley for the past two years were as follows:

Countries.	1905.		1906.	
	Hundred-weight.	Value.	Hundred-weight.	Value.
United States	2,555,500	\$3,669,779	2,906,800	\$4,021,850
Roumania	2,270,700	3,024,671	4,098,100	5,488,499
Turkey	3,454,600	5,133,356	3,662,200	5,599,244
Russia	9,850,100	12,539,856	6,899,400	8,862,491
Other countries	3,296,000	4,915,773	2,368,000	3,663,594
Total	21,426,900	29,283,434	19,984,500	27,623,976

GENERAL PROVISIONS.

CHINA.

PRACTICAL DEMONSTRATION OF SELLING AMERICAN PRODUCTS.

In reporting that another American firm has opened a sales office in Amoy, Consul H. L. Paddock covers various features of the Chinese trade, as follows:

The new firm is a California flour company, which opened its office here on December 14, 1906, and ever since has done an immense business. Prior to the establishment of its local office this company did all its local business through the Hongkong branch, and when in Hongkong en route to the United States on leave of absence in October last, the Hongkong representative of the company secured from me certain information regarding the Amoy field, which much surprised him, and the present office of his company in Amoy is the result. This company has adopted the methods of introduction used by the Standard Oil Company, and the advantages of the system are evident from the fact that the local office can not supply flour enough to meet the demands. American packing houses might look into this matter to their advantage, for the amount of packing-house products used in the district is very great. These goods are now supplied by English firms, as the Chinese people locally have discontinued the use of American canned goods since the "packing-house scandals" were published. It will take time to overcome this prejudice, but as the field is large it is worth the effort. At present nothing is being done

by American firms, and this trade will remain closed to America until a determined effort is made to regain it. I should advise the sending of competent men to investigate the field and to remain here long enough to overcome the prejudice against American canned goods, which can not be done within a brief period, but only by slow and steady work. Such a man should be familiar with the American packing-house industry and products, and one who understands the Chinese character and is willing to do hard work against great odds.

The recent scarcity of rice has made the importation of foodstuffs into China a necessity, and steady work by American firms would mean a permanent introduction of American goods into Amoy.

SUGAR.

CANADA'S MAPLE PRODUCT.

GOVERNMENT REGULATIONS FOR THE HANDLING OF THE PRODUCT.

In the following report from Consular Clerk A. E. Ingram, of Montreal, the manufacture of maple sugar and sirup is shown to be a very important industry in Canada:

According to the Canadian census the average maple sugar output of Canada approximates 17,804,825 pounds. The money value of that in one year recently was placed at \$1,780,482. Canada supplies over three-sevenths of the world's output of maple sugar and sirup, and among the Provinces Quebec is by far the largest producer, turning out 13,564,819 pounds, while Ontario furnished 3,912,640; New Brunswick, 207,450; Nova Scotia, 112,496, and other Provinces 7,420, making a total of 17,804,825 pounds.

Nova Scotia, New Brunswick, Quebec, and eastern Ontario mark the northern and western limits of the sugar maple, while it extends south into Vermont, New Hampshire, Pennsylvania, New York, and Ohio. During recent years great improvements have been made in the manufacture of maple sirup and sugar, and by employing more scientific methods (chief of which is the "evaporator," which, with its large heating surface, hastens the "boiling-down" process), it is possible to produce a high-grade quality of goods of a delicate, clean maple flavor, perfect in texture. There is an increasing demand for pure maple sirup and sugar, and it is stated that there is every assurance that an enhanced price will be paid for the genuine article.

The detection of adulteration in maple sirup and sugar from the addition of cane or beet sugars, as well as glucose and artificial flavors and other ingredients, has been recently attracting the attention of the Canadian department of inland revenue. By virtue of the foods adulteration act the minister of inland revenue collected samples of last season's crop and had them analyzed. Of the 111 samples, 85 of sirup and 26 of sugar, 65 (or 58.5 per cent) were found to be adulterated.

THE LAW CONTROLLING FOODSTUFFS.

The section of the adulteration act dealing with goods of this class reads as follows:

(d) The expression "officer" means an officer of the inland revenue or any person authorized under this act or "the fertilizers act" to procure samples of articles of food, drugs, or agricultural fertilizers, and to submit them for analysis.

(e) Food shall be deemed to be "adulterated" within the meaning of this act: (1) If any substance has been mixed with it so as to reduce or lower or injuriously affect its quality or strength; (2) if any inferior or cheaper substance has been substituted wholly or in part for the article; (3) if any valuable constituent of the article has been wholly or in part abstracted; (4) if it is an imitation of or is sold under the name of another article; (5) if it consists wholly or in part of a diseased or decomposed or putrid or rotten animal or vegetable substance, whether manufactured or not, or in the case of milk or butter if it is the produce of a diseased animal or of an animal fed upon abstracted food; (6) if it contains any added or poisonous ingredient or any ingredient which may render such an article injurious to the health of the person consuming it; (7) if its strength or purity falls below the standard or its constituents are present in quantity not within the limits of variability fixed by the governor in council, as hereinafter provided.

With reference to marks and labels, the adulteration act forbids the mixing of any extraneous matter in the food sold except in the following cases:

If any matter or ingredient not injurious to health has been added to the food or drug because it is required for the production or preparation thereof as an article of commerce in a state fit for carriage or consumption and not fraudulently to increase the bulk, weight, or measure of the food or drug, or to conceal the inferior quality thereof, if such package, roll, parcel, or vessel containing every such article manufactured, sold, or exposed for sale, is distinctly labeled as a mixture in conspicuous characters forming an inseparable part of the general label, which shall also bear the name and addresses of the manufacturer.

If any articles of food not injurious to the health of the person consuming them are mixed together and sold or offered for sale as a compound, and if such package, roll, parcel, or vessel containing such articles is distinctly labeled as a mixture in conspicuous characters forming an inseparable part of the general label, which shall also bear the name and address of the manufacturer.

OFFICIAL INTERPRETATION—STYLE OF PACKAGES.

The inland revenue department has interpreted the meaning of these sections in regard to labels to mean that the word "compound" or "adulterated" must be placed on the face of the general label in type corresponding to the size of the type used in printing the other words on the label, and all such goods not labeled in accordance with this interpretation are liable to the penalties imposed by the "adulteration of foods act."

The following form of warranty, to be signed and forwarded with each shipment of sirup or sugar by the producer or manufacturer who actually cans and labels the goods, is provided by the said act, and in the absence of this the merchant or retailer is liable in case the goods in his possession are found to be adulterated:

I hereby warrant that the undermentioned articles manufactured by myself, or by person known to me, and sold by me to ———— on the dates opposite thereto, are pure and unadulterated within the meaning of the adulteration act.

Date.	Articles.

(Signature of manufacturer or vender.)

According to a bulletin recently issued by the Dominion department of agriculture, square or oblong sirup cans are considered

preferable, being more easily packed, shipped more safely, and appearing better when labeled. Packing cases should be perfectly tight. Gallon and half gallon size cans are considered as the best sellers.

MOROCCO.

IMPORTS FORM A LARGE ITEM IN COMMERCE.

Consul-General Hoffman Philip, of Tangier, in response to inquiries, reports that sugar is a valuable article of import into Morocco, and is principally supplied by Austria, France, Germany, and Great Britain in the order named. The total importation of sugar into Morocco during the year 1904 amounted to \$2,589,815. Of this amount the coast town of Casablanca received \$560,695; Mogador \$508,740, Saffi \$488,135, Rabat \$486,825, and Tangier \$110,915.

The amount of sugar imported into Tangier during the year 1905 was valued at \$139,550. The greater part of this sugar comes in the form of conical loaves of various sizes, which is the shape in demand among the native inhabitants, by whom large quantities are consumed.

Should American firms make an effort to obtain a share of the important trade in this product here, they should use great care in the packing and preparation of the same to suit this market. The best quality of this loaf sugar comes from Austria and France and is sold for about 9 cents American per kilo (2½ pounds); the cones are of different weights, each one having invariably an inner wrapper of blue paper.

Consul Philip sends a list of merchants in Tangier who might become interested in handling American products, but expresses the opinion that the best results can be obtained by sending a special agent.

TOBACCO.

THE UNITED KINGDOM.

INCREASED CONSUMPTION OF 30 PER CENT IN FIFTEEN YEARS.

In answer to a Virginia correspondent, Consul Daniel W. Williams, of Cardiff, Wales, furnishes the following information concerning the British consumption of tobacco and tobacco manufactures:

The United Kingdom is undoubtedly the best market in the world for tobacco, for its consumption has increased 30 per cent in the past fifteen years, or at the rate of 2 per cent a year. The use of tobacco is almost universal among the males above the age of 16 years. It is used in all known forms. Laborers consume large quantities of chewing tobacco during the hours when smoking is not permitted on account of the character of their work or other causes. The pipe is seen everywhere, in the home, on the street, and the sporting field, and in all lounging places, trains, boats, etc. The cigar is most noticeable among the professional, moneyed, and aristocratic classes, but the cigarette seems to be the special favorite of all classes and

is consumed in immense quantities; it may be seen in the hands of mere lads as young as 8 years, and dealers report that there is a growing cigarette trade among women. Snuff takers are still not uncommon.

The growing use of tobacco is due to a number of causes. Many seem to think that certain climatic conditions, such as the excessive moisture in the air and the attendant depressing conditions, prepare the people to feel the need of its stimulating or soothing influence. The steady exodus from the land to the industrial centers and the wonderful development of arena sports have undoubtedly contributed to the increase in the past fifteen years. The social habits of the people are another important element. Oddly enough, there is practically no crusade against its use, by church or state, beyond the effort made by the anticigarette leagues to induce lads to abstain from the use of cigarettes until they reach the age of 21 years.

THE TRADE IN THE HANDS OF TRUSTS.

The trade has gradually passed into the hands of great companies, which have well-defined and profitable "working arrangements," and which in the United States would be known as "trusts." The greatest tobacco company is very powerful and controls directly or by contracts a large number of shops in each city and town. There are many smaller companies doing a successful business on account of the great possibilities everywhere, for a tobacco shop never finds it necessary to drum up trade. All that is necessary is to plant a shop in the stream of trade and it will flow into it.

A tobacco combine has the advantage over small competitors out of proportion to the difference in capital, for two reasons: There is a considerable excise tax on all forms of tobacco, and all the tobacco has to be imported from over seas. A small quantity of tobacco has been grown in Ireland for three years as an experiment, but this has no effect upon the trade.

EXTENT OF IMPORTS.

As will be seen in the following table, prepared by the Bureau of Manufactures, showing the imports into the United Kingdom in 1905 and 1906, as taken from British official returns, the greater portion of the tobacco and tobacco manufactures consumed therein is drawn from the United States:

Description.	1905.		1906.	
	From the United States.	From all other countries.	From the United States.	From all other countries.
Stemmed	\$1,328,100	\$308,100	\$2,776,900	\$321,200
Unstemmed	7,142,200	2,108,700	9,667,500	2,345,700
Cigars	6,861,500	1,000,100	6,026,200	1,004,000
Cigarettes	21,000	605,900	22,400	586,500
Cavendish and Negrohead	189,800	15,200	201,400	48,100
All other, and snuff	18,800	18,700	20,200	20,200
Total	14,061,400	4,061,700	18,714,600	4,824,700

"All other, and snuff" not being credited to countries is divided between the United States and other countries to make the statement complete.

GERMANY.

A PROSPEROUS YEAR—HIGHER PRICES FOR LEAF.

Consul E. T. Liefeld, of Freiburg, reports that the German cigar industry was benefited by the continued general prosperity of the country. He reviews last year's operations as follows:

The passage of the law increasing the tax on tobacco brought a great increase in the demand before the law took effect, which kept on well into the year 1906, but of course the reaction will soon be felt. Prices of raw material, both inland and foreign, also increased, and wrappers were hard to procure. The high prices of inland tobacco were due to the poor 1905 crop, which was greatly damaged by hail. Sumatra wrappers could be obtained at the old prices only when they were dark, but as the dark wrapper is very unpopular in Germany the manufacturers were forced to buy the light Sumatra wrappers at very high prices, the strong demand for this wrapper in America and America's sharp competition for it being the cause of its high price. The small available quantity of foreign tobacco had the result that the 1905 German tobacco, though of very poor quality, was bought up at unusually high prices.

Wages showed an ever-increasing tendency, which was partly due to the introduction of new qualities and new styles which were more difficult to manufacture. The number of available cigar makers is gradually decreasing, as the best hands are turning more and more to agriculture and so are available to the cigar manufacturer, if at all, only in the winter. No difficulties were experienced with labor. Manufacturers of snuff tobacco report a good year.

BELGIUM.

TRADE DIFFICULTIES AND CHANGING METHODS.

Consul-General G. W. Roosevelt, before his death recently, made the following report from Brussels on the tobacco trade of Belgium:

As selling prices remained stationary, although high, the situation was regarded as unsatisfactory. Tobacco, especially dark colored, which is more appreciated on this market than Turkish tobacco, steadily increased in price. The situation was not considered satisfactory on account of the high price for raw material and difficulty in advancing prices of manufactured goods, especially as concerned cigars, which found a strong competition in manufactured cigarettes, the use of which is becoming more general and extended. The market in this line, however, was so glutted that cigarette makers were obliged to sell at any price. As the adoption of machinery in the manufacture of cigars and cigarettes extends hand labor is gradually disappearing.

CUBA.

EXPORTS TO UNITED STATES—COMPETING COUNTRIES.

A comparison of Cuba's tobacco trade during the year of 1906 by Consul Max J. Baehr, of Cienfuegos, reveals the interesting fact that although 469,882 pounds less of leaf tobaccos were shipped to the

United States in 1906 than in 1905 the difference in value of the two crops is but \$29,893. Mr. Baehr reviews the tobacco trade as follows:

These figures show that although Cuba may have had a bad crop of tobacco the increase in the price almost offsets the loss of production. They also show in an unmistakable manner that there is a demand for Cuban tobacco which must be supplied, no matter what the cost. It is almost safe to say that though the Cuban crop should be cut in half the prices could be raised so as to almost cover the loss. In the United States especially there is a demand, apparently, for Cuban tobacco that must be supplied, let the cost be what it may, but other countries are rapidly increasing their tobacco production. The Netherlands, for instance, in 1905 exported to the United States 371,656 pounds and last year increased it to 561,317. Cold and bleak Canada almost trebled her tobacco trade with the United States in one year, and far-off Asia in 1906 sent 118,737 pounds, as against 94,198 in 1905.

Germany last year shipped to America 285,170 pounds, an increase of 81,322. The gain of other European countries, however, is enormous, having in one year jumped from 61,066 to 364,985 pounds.

But it is Mexico that Cuba should especially watch, owing to climatic and soil conditions, there being some places very similar to Cuba. The Mexican tobacco industry is just beginning to grow beyond the confines of that country. Mexico exported in 1905 to the United States only 1,621 pounds, while last year she exported 42,779. Increasing in this proportion each year Mexico would have Cuba beaten in short order.

While the exportation of leaf tobacco in 1906 fell considerably short of that of the preceding year, yet Cuba exported 253,404,493 cigars, which shows an increase of 22,763,692 over 1905.

MEXICO.

DEMAND FOR AMERICAN MATERIAL.

Consul-General Philip C. Hanna makes the following report from Monterey on the demand for American tobacco in Mexico:

An American tobacco factory has been established in Monterey, and large quantities of American tobacco have been shipped to this city from the United States. The manager of the company informs me that there is an increased demand for American tobacco in Mexico, and that it is almost exclusively used in the manufacture of what is known as "shuck cigarettes," a kind of cigarette with corn-husk wrapping, popular with all classes and especially popular among the working people.

FRUIT TRADE.

FRANCE.

HOW APPLES SHOULD BE PACKED AND SHIPPED.

In reply to a communication from a New York industrial agent, who wanted to know why, in Daily Consular Reports for March 12, 1907, Consul John C. Covert, of Lyon, recommended that apples

should be packed in half barrels instead of barrels, the consul supplies the following additional information concerning the apple trade in France and how it is conducted:

My reasons for advising the packing of apples in half instead of whole barrels are: The wholesale fruit dealers say that when packed in barrels the lower tiers of fruit are often bruised during the long voyage by rail and sea, and the dealers assert that they could sell a great many half barrels to people who would not buy a whole barrel, and that in their auction sales it is not convenient for them to sell by the peck or the half bushel. In the Lyon central market house, fruit, vegetables, and game are sold every day at auction. Such articles are also sold at auction in about 20 wholesale houses throughout the city. The purchasers always sell these goods again at retail. Apples and various vegetables arrive at the stores or the central market from Algeria, Tunis, and different parts of France, packed in large baskets and willow crates, and they are knocked down to the highest bidder in the way they reach the market. They are never sold otherwise by these wholesale dealers than in the original packages.

MANY SMALL SHOPS—PRICES AND DUTIES.

In every city and village in France small shops abound, where vegetables, fish, olive oil, game, and fruit are sold at retail. These little shops are a distinct feature of French trade. They are generally owned by women who have economized a few thousand francs (franc, 19.3 cents) in domestic service, and who seek this means of placing themselves in an independent position for the rest of their lives. Their only experience in business has been gathered from buying in these little shops for the families where they were employed. They will buy a half barrel or a small box of apples every day or two, while a whole barrel is beyond their means. Apples from Italy come in small boxes, weighing from 50 to 100 pounds, and they sell readily.

The freight on merchandise shipped in crates is less than when shipped in barrels or in close boxes. In order to enjoy the lower freight rate the following French words must be marked on the top of the box: "Tarif le plus réduit en caisse a clair voie, pommes a la pelle," which, literally translated, means "the lowest tariff in open boxes, apples by the shovelful." This statement must also be made in the invoice or bill of lading.

I have inquired why the freight is lower when the boxes are thus marked, and the only answer I have received is that the quality of the merchandise is thus known, and it is intended to favor farmers by lower freight rates. It is recommended to place two thicknesses of paper between the apples and the sides of the box or barrel, and one thickness between each layer of apples.

The customs duty on apples is 3 francs (57.9 cents) maximum, and 2 francs (38.6 cents) minimum, per 100 kilos (220.46 pounds). The minimum duty is applied to countries which have a reciprocity treaty with France.

The price of table apples in Lyon has ranged from 20 francs (\$3.86) to 150 francs (\$28.95) per 100 kilos during the last ten years. At present the retail price is about 20 cents per pound. In a first-class restaurant in Lyon one pays 12 sous (about 12 cents) for one apple for dessert.

SHIPPING AND SHIPPING AGENTS.

Americans intending to ship apples to Lyon will run some risk in finding a profitable market. It would be to their advantage to ship their goods on an American steamer, direct to Havre or Marseille. For the Lyon market the latter port is preferable. If the fruit is as good as that which is raised in France, they will be particularly sure to find a good market. They should have their own agent at the port of arrival to ship their goods to interior cities without loss of time, and he should not be in the business at that port. If he is in the business, it is intimated that he may ship his own damaged goods to the interior city, and replace them by the newly arrived fruit. I have heard of American hams shipped to this city from an American city, which came by way of England, that were so long on the way that when they arrived here they were unfit to be offered for sale. I have heard of a cargo of salmon being shipped to a seaport of France to be forwarded to an interior city, and that the middleman changed them for his own goods and sent to the interior city salmon unfit for sale. Something similar might happen to American apples if there is not a trustworthy agent at the port of entry to receive and forward them.

If all the farmers in the United States who write to me on this subject send apples to France, they may glut the market, but I am of the opinion that if the fruit is as good as represented it will find purchasers. French fruit growers will make more cider and bring fewer apples to market. Nothing can prevent out best apples finding a good market in this country, for the French people are fond of eating an apple as dessert, and they will buy the best. If they once get a taste for the American apples, they will buy them.

[The names of the leading fruit dealers in Lyon, transmitted by Consul Covert, are on file in the Bureau of Manufactures.]

MARKET OPENING FOR AMERICAN ORANGES.

Consul Chapman Coleman, of Roubaix, calls attention in the following report to the prospective market for citrus fruit:

Our excellent California and Florida oranges are not in evidence in the markets of this part of France, although they should, it would seem, find ready sale here at certain seasons, when a good quality of oranges of French and other European origin has not yet matured. No oranges are marketed here in the summer and autumn. With the beginning of winter they first appear, but are sour and of poor quality, generally, and not until March are good ones to be had.

Certain varieties of California and Florida oranges mature as early as September. The opportune time for the sale here of this fruit, of which such abundant crops are now grown in the United States, would be during the six months from September to March; and the greater advantage would inure to the earliest practicable shipments of a good article. This opinion is based on the assumption that the fruit can be gotten here in good condition, and it is confidently believed it can be, and that it is offered for sale at a fair price.

SPAIN.

DECREASED ALMOND AND RAISIN SHIPMENTS TO AMERICA.

Consul D. R. Birch, of Malaga, summarizes the raisin and almond trade of that Spanish district for the past season as follows:

One-third less almonds were marketed to American buyers during the year just closed than were sold in 1905. This was due to the shorter crop and higher selling price.

Although the sales to the United States of muscatel raisins fell short by 26,000 boxes, as compared with the previous year, yet the tables show the rather remarkable circumstance that the value of the 1906 sales was \$17,462 in excess of the previous season. Two violent rainstorms in September, which destroyed one-half the raisin crop, caused a considerable rise in the selling price, which continually increased as the season advanced.

OMAN.

INCREASED AMERICAN PURCHASES OF PERSIAN GULF DATES.

Consul William Coffin, writing from Maskat, Oman, says that the date season of 1906 shows that the value of the exports from that Arabian port amounted in value to \$493,589, an increase of \$45,288 over 1905, the following being the details:

The United States is solely responsible for the increase. She took \$130,022 worth of Fard dates in 1906, as against \$59,704 in 1905, a gain well over 100 per cent. India purchased \$340,261 worth last year, against \$364,950 the year previous. The date trade is the principal export industry of Oman. America takes the best quality of "wet" dates produced, although India, in addition to her large consumption of the cheap "dry" dates, purchases a goodly quantity of the wet dates as well. The yield is largely dependent upon the rainfall. There were heavy rains for this part of the world, where the average rainfall is around 6 inches, during 1904 and 1905, and also during the present winter, so that for the next two years good crops are assured.

For a long time the export of dates to America was in the hands of one or two firms. Now the field has been entered by others, and during the past season six concerns in Maskat were packing dates for American exporters. This competition serves to keep the price well up, as the date caravans come in from the interior and sell their cargoes at auction. Contracts for future delivery are often made with growers and money advanced, but even then deliveries are usually made subject to the prices prevailing at the time. There has been some difficulty experienced this year in securing labor to pack the dates for the American market. This work is done by women, and the increased trade resulted in a scarcity of hands and an increase of wages. If the situation exists again next year, it can probably be met by importing labor either from India or Baluchistan for the packing season, which begins in August and is usually over early in January at the latest.

. STRAITS SETTLEMENTS.

PINEAPPLE INDUSTRY OF SINGAPORE.

Consul-General David F. Wilber furnishes the following information concerning the efforts now being made to control the pineapple output of the Straits Settlements:

An effort is being made by certain local dealers in preserved pineapples to secure control of the entire production of Singapore canned pineapples. In the past, certain local dealers have made advances of money to the Chinese, who produce all the pineapples for canning purposes on the island, which has, to a great extent, given them the control of the production. Other dealers are interesting themselves to wrest the control of the production from those who have been making advances to the pineapple growers by inducing the latter to contract their entire growth at a certain price. When those who had been making the advances informed the growers that they would be required to pay back all the advance made them if they entered into such contracts, and not being prepared to do so, a temporary halt was caused in the new movement. It is now understood that both sides among the dealers are endeavoring to make a compromise. It is a question, whichever way the matter turns out, whether the producer will reap any benefit. It may result in an improvement in the quality of the fruit.

AUSTRALIA.

MEDITERRANEAN FRUIT FLY SPREADS INTO ANOTHER STATE.

Consul-General J. P. Bray reports from Melbourne that much consternation has been caused by the discovery in many of the orchards in the State of Victoria of the existence of the pest known as the "Mediterranean fruit fly." He writes:

It has been positively identified by the Government entomologist and has been found in many widely distant localities. The orchards of the States of Queensland and New South Wales have been subject to the pest for some time, and as the result of an investigation just made it seems to be conclusively proved that Victoria owes its introduction to the importation of bananas, oranges, and cucumbers from the former State, as the larvæ of the fly has been discovered in large numbers on those fruits when landed on the Melbourne wharves.

A thorough inspection of the orchards of the whole of Victoria is to be made and every possible step taken by the authorities to eradicate the evil and prevent its further introduction by either the total prohibition or a rigid inspection of all fruits imported from places where the pest is suspected to exist.

RUSSIA.

FRUIT-PRESERVING INDUSTRY IN THE CRIMEA.

Consul-General Hugh Pitcairn, of Hamburg, writes that, according to the Provianteur, an industry has in recent years developed

in the Crimea the object of which is to preserve the rich fruit and vegetable supplies of southern Russia, chiefly for consumption in the northern regions of that Empire. The chief branch of this industry is the manufacture of sun-dried fruit; it further embraces the manufacture of grape marmalades in cans and glasses. Of the latter article one factory alone is said to have a yearly output of approximately 400,000 cans. Other specialties are purées, stewed fruit, comfits, etc. The present annual output of four factories alone is estimated to be valued at about \$250,000. It is believed that this industry will develop further, and that it will remain capable of meeting competition, particularly foreign, because of the low costs of production.

SPAIN.

THE CATALONIA OLIVE YIELD WAS ONE-THIRD LESS.

The following figures, furnished April 11 by Consul-General B. H. Ridgely, of Barcelona, show the result of the last olive crop in Catalonia, according to official statistics. Incidentally, he says it may be stated that Catalonia is that part of Spain which comprises the great provinces of Barcelona, Tarragona, Lerida, and Gerona, with a total population of about 2,000,000. A hectare is 2.471 acres; metric quintal, 220.46 pounds.

Province or district of—	Area in trees.	Total production of olives in the district.	Olives used for extracting oil.	Percentage of oil extracted.	Total production of oil in the district.	Average price per 100 kilos.	
						Pesetas.	United States equivalent.
	<i>Hectares.</i>	<i>Metric quintals.</i>	<i>Metric quintals.</i>		<i>Metric quintals.</i>		
Barcelona	5,400	35,519	33,606	13.60	4,567.50	131.6	\$25.00
Tarragona	58,912	314,876	308,578	13.19	40,690.17	127.4	22.00
Lerida	75,505	722,200	722,200	19.29	138,662.00	115	20.00
Gerona	15,180	136,349	130,865	13.00	16,007.14	119.4	20.50
Total	a 154,947	b 1,208,944	c 1,195,249		199,926.81		

a=382,719 acres.

b=120,894 tons.

c=119,520 tons.

The crop, as indicated, is about two-thirds of a good ordinary one, and the prices 25 per cent higher than those of last year.

MODERN AGRICULTURE.

CANADA.

THE PRINCIPAL INDUSTRY OF THE DOMINION.

Consul James H. Worman, of Three Rivers, Quebec, writes as follows concerning agriculture as compared with other industries of Canada:

It is the general impression that lumbering is the principal industry of Canada, but if the export figures for 1906 are to guide in this matter the returns of the export of agricultural products exceed those of the forest by \$20,826,654, agriculture being credited with

\$54,062,337, against \$33,235,683 for the forests. It appears from the returns that, despite the fact that Canada has made such progress in dairying and now exports about \$32,000,000 worth of butter and cheese, she imported to the extent of more than \$100,000 of these products, of which the United States furnished over half.

Within recent years the provincial government has taken great pains to educate the husbandman in his profession. In 1906 hogs were distributed for breeding purposes to improve that class of animals. The pedigrees of the French horse were made the subject of special investigation; other classes of work horses were imported for breeding purposes. Sessions for instruction in husbandry, and especially in dairying, were held all over the Province, and as a result great advances were recorded.

It is claimed that the enormous development of the grain-producing Northwestern Provinces will make Canadian agricultural interests the prevailing influence in any adjustment between the United Kingdom and the United States. A commercial union with the United States is favored by the new producers of the Northwest, whose influence is beginning to dwarf that of the older portions of the Dominion. But even in this Province during the tariff-revision conferences it became evident that the farmers controlled public sentiment, and the reductions made in the tariff favored especially the husbandman. He can now supply himself with tools and machinery at much lower rates than formerly.

WEALTH OF THE CANADIAN FARMER.

There is no question that the largest percentage of the amount at present on deposit in Canadian banks (some \$750,000,000) is controlled by the agricultural community. This vast amount is in addition to the large sums on deposit with trust and loan companies and in farm mortgages, for it is well known that in recent years the aggregate of farm mortgages, in Ontario and Quebec particularly, has been decreased. The farmers to-day as a class are not borrowers, but lenders. This is markedly so in this Province.

Turning to the other side of the banking returns, it is observed that current loans and discounts, which represent the volume of money employed in the manifold industries of the country, have increased in just about the same ratio as the deposits. In other words, the manufacturers of the country and those engaged in other lines of activity are borrowing the capital required in their various enterprises from the farmers.

SERVIA.

COOPERATIVE SOCIETY MAKES PURCHASES OF IMPLEMENTS.

Consul M. K. Moorhead sends an illustrated catalogue of agricultural implements sold by the Servian Cooperative Society, of Belgrade. As to the methods used by the society in making its purchases and sales, the consul gives the following particulars:

This catalogue [which is filed for reference at the Bureau of Manufactures] will give American exporters an idea of the kind and quality of agricultural implements used in Servia, the great majority of which are imported from Germany by the cooperative society and sold to the farmers at the prices given in the catalogue. This society,

which receives a subsidy from the Servian Government in the shape of a share of the State lottery, will be pleased to enter into correspondence, in German, with American exporters, with the view of purchasing yearly a considerable amount of implements.

It must be remembered that the methods of farming are still very primitive. Most of the land is owned by small proprietors. Each Servian peasant by law is guaranteed a piece of land 2.8 hectares (6.9 acres) in extent, which can not be sold for debt nor mortgaged. The result is that many of the peasants are satisfied with their 7-acre plot, on which, by the aid of an old wooden plow or a very cheap iron one, an ox, a cow, a few chickens, and pigs, they can exist. It is no argument to such a peasant that with better implements and more scientific farming more and better crops could be produced. His invariable reply is that he can now produce enough to feed and clothe his family and why should he try to do more. Thirty-one per cent of the landowners have plots of ground less than 7 acres in extent; 30 per cent, from 7 to 15 acres; 26 per cent, from 15 to 29 acres; 9 per cent, from 29 to 49 acres; 3 per cent, from 49 to 74 acres, and 1 per cent, over 74 acres. Thus over one-half of the farms are less than 15 acres in extent and over 80 per cent less than 30 acres, while only 1 per cent are over 74 acres in area.

The cooperative society and the department of agriculture are doing their utmost to educate the people up to better methods, and it is probable that each year will see larger purchases of improved implements. American firms should now try to get a foothold in this market before it is entirely occupied by the Germans, for when the Servian becomes accustomed to buy in a certain market it is very difficult to induce him to purchase elsewhere. American firms can not expect to make sales to any extent unless more rational methods are used. Simply sending catalogues printed in English will never produce any results. During the last year this office has been flooded with catalogues, but not one was printed in a language that could be understood by the Servian importers. German must be used. Since last August only one American commercial traveler has called at this consulate, and he, after getting a list of dealers in Belgrade, received some very good orders for files.

CYPRUS.

PROGRESS OF AGRICULTURE IN THE ISLAND.

Consul-General G. B. Ravndal, of Beirut, in Syria, states that reports from the island of Cyprus indicate that there is a much more active demand for modern agricultural tools and implements than has previously been known.

Quite a number of cultivators and reaping machines are in use and more are on order. Doubtless a spurt was given in this direction by the agricultural fair held in Nicosia last autumn. Opportunity was then afforded to farmers and peasants of seeing modern iron plows, disk harrows, etc., in actual operation, as a piece of land adjoining the show ground was expressly reserved for this purpose by the agricultural department of the insular government. The introduction of modern plows is expected to prove of special benefit to cotton lands.

SPAIN.

NEW DEEP-PLOWING INVENTION.

Consul-General B. H. Ridgely, of Barcelona, reports that a new appliance for deep plowing has been brought out in Spain which has attracted some attention, and the consul-general says that it seems to meet a long-felt want. He writes:

The apparatus consists of an ordinary breast plow which, instead of being drawn by horses or oxen, as is usual in this country, is pulled by a steel rope attached to a portable windlass, or capstan, which is fixed into the ground in an adjoining field, or at some distance from the section to be plowed. The windlass, which is arranged with different gears for regulating the speed and power, carries a strong steel rope 150 to 200 yards in length. This rope, one end of which is attached to the plow, is passed through a sliding pulley fastened by an automatic device to another steel rope 16 yards in length, fixed to the ground by pegs at either end, which enables the plow to be moved along as each furrow is made. Furrows of a depth of 14.7 and 17.7 inches wide can be easily and rapidly made with the help of one or two horses, where six or eight would be required by the old system of direct traction. The total cost of the plow, windlass, and all accessories complete is 1,800 pesetas (present current value of silver peseta about 18 cents; gold peseta, 19.3 cents). But a heavier and stronger pattern is supplied for furrows of a depth of 17.7 inches to 27.6 inches, the cost of which is 2,800 to 3,800 pesetas. [The consul-general sends illustrations of the plow and its workings, which are filed for reference at the Bureau of Manufactures.]

AUSTRALIA.

SILK FIBER MADE FROM PINEAPPLE LEAVES.

Vice-Consul J. K. Foster writes from Newcastle that experiments made in Queensland with the leaves of the pineapple plant have shown that there is a fiber in them which may be used in the production of a useful kind of silky cloth. As to the particulars, he adds:

The fiber experimented upon has simply been obtained by the soaking of the leaves until the outer covering could be easily removed and the soft, jelly-like substances around the fiber pressed away. The fiber when dried has been found to be of fine texture and of good staple and strength. Some of it has been exhibited at Rockhampton and a sample has also been placed in the hands of a firm of ramie dealers and spinners to discover its market value. There is a great demand for all kinds of fibers, and this may be found to be a valuable one. Possibly there is here the utilization of a waste product. The leaves of this ground fruit have ever been destroyed as worthless, but if the fiber can be used it will be an additional source of profit to the pineapple growers. The process of extracting the fiber from the leaves need not be an expensive one, and if some new kind of silky material can be obtained it will produce no small amount of wealth. Pineapple silk may become the fashion. It will be worth while to make further experiments.

FORESTRY PRODUCTS.

FURNITURE IN GREAT BRITAIN.

A GOOD MARKET FOR THE RIGHT KIND OF ARTICLES.

A report from Special Agent William Whittam, jr., indicates that the furniture trade of Great Britain can be successfully and profitably exploited by American manufacturers if they will cultivate it as assiduously as they now strive for business in the domestic field. Mr. Whittam contributes the following trade suggestions:

To achieve a prosperous issue our furniture makers must not only meet competition in prices; they must also supply the styles and designs which are fashionable and pay attention to the details of finish and stability, which are the idiosyncrasies of the British purchaser. This is an old story repeated and reiterated about every conceivable sort of merchandise by special agents, consuls, and other commercial representatives of the United States in foreign countries. Nevertheless it is a lesson which our industrial managers must learn before the good fortune in foreign trade many of them wish for can ever be theirs. A few in varied lines of work have carefully followed the foregoing advice, and their success has been amazing to themselves.

It is first important that the American furniture trade should know that there exists a strong prejudice against their output, and it is equally necessary that the trade apprehend the underlying reasons for this impairment of reputation. A large dealer told me very frankly that although we turn out superior shapes and designs, the wood from which our furniture is made is seldom properly seasoned to stand the peculiar climate and comparatively crude interior household heating arrangements of Britain. To substantiate his contention he showed me an American roll-top desk which had warped so badly that some drawers and other parts were falling to pieces, while other drawers were stuck so tight that it was impossible to open them; and I was told that the use of unseasoned stuff was responsible for the trade in desks and office furniture, once absolutely controlled by American firms, being now largely in the hands of British manufacturers.

LACK OF CONFIDENCE.

I was also shown an American-made oak armchair which, as the dealer expressed it, was "a work of art so far as shape and comfort went, showing years of study to obtain ease; but," he added, "before I could get a sample fit to submit to one of the largest municipal bodies in the country I had to send for four chairs." The only complaint he had to make was that the joints of the several parts were left rough and poorly finished, glue and rough edges being exposed and merely varnished over. He said that these defects, though scarcely noticeable, rendered high-grade furniture almost unsalable in his market. The contract for several thousand chairs he secured

from the American-made sample he submitted, but, being afraid of rejection on account of his experience in obtaining a passable sample, he induced an English firm to undertake the manufacture of the lot. I examined one of the rejected samples and can vouch for the conservativeness of the statements made to me. So much for the causes of existing prejudice.

I found that little quartered oak is used except in very heavy furniture, and that in finish "golden oak" and dark finishes and woods are the vogue just now. Sideboards, buffets, and wood bedsteads in greatest demand are altogether different in design from those popular in the United States, although since my return from abroad I notice in the stores of dealers in high-class furniture here many articles closely approaching the newest styles in Britain.

Antique patterns and finishes are the readiest sellers, and sideboards are much sought after. Dealers, I was informed, object to the bother of putting together "knocked-down" furniture. This plan, however, can not well be dispensed with, on account of excessive ocean freight charges on "set-up" articles. Tactful explanation of the economy of adhering to this practice would soon overcome the scruples of the dealers on this score. Another feature which was impressed upon me was that upholstered and covered articles of furniture should be shipped bare—i. e., without the plush, leather, or other covering—for the reason that such materials cost much less in England than in the United States, and that the work of putting the material on can be done considerably cheaper abroad.

OPENING FOR CHAIRS AND WARDROBES—CATALOGUES AVAILABLE.

I also found that there exists a splendid opening for the sale of cheap chairs for use in the living rooms of artisan's cottages. Judging from prices and styles of the office chairs I saw exposed for sale in England, Scotland, and Ireland, I am satisfied that American makers of such goods could develop a considerable business in this line, and there is also a fertile field all over Great Britain and continental Europe for the introduction of the American barber's chair. By comparison the chair now used abroad for this purpose is crude and uncomfortable. Our product can be sold, but continuously applied effort must be brought to bear to popularize them.

Comparatively few European houses are built with closets for clothes, consequently nearly every householder buys one or more wardrobes. This article of furniture is little known in the United States, yet our furniture manufacturers could undoubtedly find a field for profitable exploitation in this peculiarly European commodity.

In a report of this sort it is impossible to go into details of design and price. I have therefore sent to the Bureau of Manufactures a number of complete catalogues covering practically every kind of household and office furniture, including metal bedsteads, kitchen utensils, fenders, and fire irons. The prices given represent retail selling values, so that our manufacturers may determine the margins between their costs and the ultimate price paid by the user. [These catalogues will be loaned to furniture makers upon their application to the Bureau of Manufactures.]

The necessity of adapting our products to meet the peculiarities of climate and taste of another country has already been encountered and overcome by the makers of American shoes. It only remains for

our furniture manufacturers to follow in their footsteps, and they will then achieve a degree of success which will make American furniture as popular abroad as American shoes now are. There is absolutely no discoverable British antipathy to any article of furniture on account of its country of origin. The whole question resolves itself into the matter of supplying suitable goods properly made at competitive prices.

LUMBER TRADE OF BRAZIL.

EFFECT OF INCREASED DUTIES ON THE IMPORTS OF AMERICAN PINE.

Consul-General George E. Anderson, of Rio de Janeiro, transmits the following report on the lumber trade of Brazil:

The imports of lumber in general, including American pine, into Brazil during 1906 amounted to substantially the same as the imports of 1905—say, 21,000,000 superficial feet, compared with 20,000,000 feet in 1905. This, however, represents a direct falling off from the importations of several years ago, and the falling off is greater when the difference in the demand for lumber is considered, especially the demand for the particular pitch pine of the United States for structures like those which have been in the course of erection in the great municipal improvements in several Brazilian cities, notably Rio de Janeiro. The decrease in imports is due to the exceedingly high duty placed on foreign pine in the tariff act of 1904 to protect the pine industry of the State of Parana.

IMPORT STATISTICS.

Last year only two classes of lumber show increased imports. Staves and hoops amounted to \$25,257 in 1904 and to \$98,066 in 1905, and "lumber unenumerated" rose from \$52,720 to \$65,149, with further increases in both in 1906. The United States has about one-fourth of the trade in the latter class, but the increase in the item generally is in the amount of pine lumber coming from Paraguay in connection with the pine trade of Parana. The imports of match sticks and boxes fell off from \$122,716 for 1904 to \$80,811 for 1905. This decrease is due to the efforts of the Parana mills to supply this material, in which they are succeeding. The bulk of the import lumber trade of Brazil, however, is in imports of pitch pine, of which the United States has been furnishing nearly 90 per cent, the following being the import figures:

	1904.	1905.		1904.	1905.
United States.....	\$1,271,089	\$1,075,675	Other countries.....	\$34,600	\$32,619
Canada.....	43,212	45,677			
Sweden and Norway.....	76,461	145,824	Total	1,425,362	1,299,796

In the way of consumption there was an increase at all ports except Rio de Janeiro, and this change is quite significant. Builders in Brazil have come to demand a certain portion of pitch pine in all their finer buildings for certain purposes. The increased price of the pine has prevented its use for more general purposes, and in Rio de Janeiro, where there has been a boom in building during the past

two years, builders were compelled to forego the use of pine in many places where it would have been used but for its increased price.

The duty on pine in 1906 was advanced 114 per cent over the 1905 tariff rate, or from practically \$12.60 gold per 1,000 superficial feet to \$27.05, with milreis exchange figured at 32 cents. In spite of protests from importers and builders, as well as American interests, the tariff schedule for 1906 is continued in 1907. There was even an expectancy among importers that the duty would be so increased as to shut American and other foreign pine out altogether, and for that reason unusually large shipments were brought in during 1906 to avoid the expected increased duty.

BRAZILIAN AND AMERICAN PINE.

There is no conflict between Parana and American pine, for they meet entirely different requirements and do not come into competition. American pitch or "Georgia" pine is needed in Brazil for its dampness-resisting qualities, and especially because it is not attacked by the white ants of the Tropics. It is required for specific purposes. Its high price at home, and especially after its long haul to a Brazilian market, renders it out of the question for ordinary building purposes, and to restrict its importation is merely to prevent its use without offering any substitute.

There is very little pine in Brazil, and none of the pitch variety. Brazilian lumber generally is costly. Probably no country in the world has as great a variety of native trees as Brazil, and the amount of extra fine lumber timber in the Amazon forests is almost incalculable. But with all this the actual sawing of this timber into lumber is practically impossible in many places, and in all places it is costly, dangerous, and difficult.

In Parana small lumber camps have been established and poorly equipped mills set up which produce from the scattered white-pine trees the lumber which is the foundation for the tariff wall. The output is very limited. The exports of this lumber were valued at \$14,185 in 1904 and \$52,213 in 1905, nearly all going to Argentina. It is probable that 1906 shipments will show considerable increase. How much of the product goes to other ports in Brazil is uncertain, and it is doubtful if it is as much as the exports. Some of the lumber has been brought to Rio de Janeiro, but it is used only for cheap purposes, comes in small cuts, and has been unsatisfactory in every way.

If the lumber exporters of the United States will continue to furnish good stock at fair prices, it is only a matter of time until the actual need of pitch pine in Brazilian building operations will lead to such a modification of the existing tariff rates as will make American trade in increasing volume again possible.

QUEBEC TIMBER LANDS.

LUMBER MILLS AND OUTPUT LARGELY AMERICAN.

In his annual review of the trade and industries of his district, Consul James H. Worman, of Three Rivers, furnishes the following

information concerning the timber lands and the timber-milling output of the province of Quebec:

Americans were the first to organize milling companies to build sawmills in this consular district. Their operations have continued to this day, and, with three exceptions, the lumber industry of Three Rivers may be said to be in the hands of Americans or controlled by American capital. Besides the mills in Three Rivers, there are ten or more large mills along the north and south shores, many of which are controlled by American capital, and exporting their products to the United States principally.

Canadians are endeavoring to influence such government measures as may force some American industries dependent on Canadian forest supplies to transplant to the Dominion. The farmers who have forests to cut, especially in Quebec and Ontario, oppose rigidly such legislation. The withdrawal of the United States from the Canadian lumber market would mean impoverishment to many of the owners of forest land.

EXPORT OF PULPWOOD—QUEBEC'S LUMBER RESOURCES.

When the tariff revision was under discussion in conferences held in this consular district, pulp and paper manufacturers advocated an export duty on pulp wood, but the farmers successfully opposed the proposition on the ground that cutting pulp wood was the best means they had to obtain ready money during the winter months.

This entire export of pulp wood goes to the United States, but yet it only constitutes 25 per cent of the consumption of the pulp wood used by American paper mills, viz, 2,500,000 cords per annum. The Adirondacks supply 580,000 cords, or almost the same amount as Canada.

The premier and minister of crown lands for Quebec in 1903 said that there were in this Province 62,592 square miles of crown lands under license and 100,000 square miles of absolute forest not then under license, making a total of 162,000 square miles of crown timber lands, amounting to 104,000,000 acres. Since that date the mileage under license has increased to over 67,000 square miles, and there are, besides the vast limits, some 20,000,000 acres of seigneuries and patented lots, of which by far the larger portion is timbered.

A recent estimate of the timber supply in Quebec alone places the figures for soft-wood logs at 155,000,000,000 feet; hard-wood logs, 21,000,000,000 feet; pulp wood, 745,000,000 cords; besides 730,000,000 railroad ties and wood suited only for shingles and fence posts. The wealth in forests of the maritime provinces of northern Ontario, of the Pacific slope, of the Saskatchewan Valley, and the Far North is yet to be added.

CEDAR WOOD IN DOMINICAN REPUBLIC.

Vice-Consul J. A. Read, writing from Santo Domingo in regard to the growth of red, smelling cedar, or juniper, suitable for the manufacture of pencils, says that there exist considerable quantities of cedar timber, but no successful exploration has been made except by a Virginia lumber company which owns several tracts of land yielding cedar, and has done a good deal, and is prepared to do more, in getting out cedar and other woods.

RUBBER.

UNITED KINGDOM.

BRITISH BUSINESS MEN DEEPLY INTERESTED.

Vice-Consul W. J. Sulis, writing from Liverpool, says that since the great development of the cycle and motor industry the demand for rubber has enormously increased throughout the world, and there is no indication that the limit of requirement has been nearly reached. His review of the rubber market continues:

Many people believe it will require all of the time of growers to produce rubber in sufficient quantities to meet the increasing demand, considering that at the present time the world's requirements are about fifteen times the amount which was needed thirty years ago. The United Kingdom alone in the year 1905 imported 593,437 hundredweights and in 1906, 607,077 hundredweights of unmanufactured rubber, valued respectively at \$46,932,286 and \$48,502,556, as against 264,008 hundredweights fifteen years ago.

In 1880 the declared value of raw rubber exported from Liverpool to the United States, and invoiced at the consulate, amounted to \$194,543, while the amount so exported in 1905 was \$6,055,434, or over thirty times the value of that of 1880. Twenty years ago rubber sold in England at 60 cents per pound; to-day it is selling at \$1.29 per pound. The increasing demand has, of course, encouraged more growers, created new fields of enterprise, and occasioned improved methods for gathering the caoutchouc. It must be remembered how many and varied are the uses to which rubber is applied, and that scientists are endeavoring to manufacture a substance endowed with the qualities which make rubber so valuable. Quite recently the chemical composition of motor-tire rubbers has been under investigation by the members of the Society of Chemical Industry. The result of their labor is interesting, as there seems to be little doubt that tire failures are due to faulty rubber mixing. Samples of rubber tires representing the makes of seven leading manufacturers in England and abroad were examined. The following conclusions were reached:

(1) That in many cases tire trouble was directly referable to chemical defects (such as over or under curing, unsuitability of the quality of the rubber, excess of mineral matter, etc.) of the mixings; (2) that manufacturers were by no means agreed as to the nature and quantity of the various ingredients and conditions of manufacture to be employed, and (3) that it was apparent from the widely divergent results obtained in some cases with tires of the same size and make that the process of manufacture was not always conducted on sound scientific lines.

With such an enormous and rapidly developing industry it is not surprising to find a commercial body such as the Liverpool Chamber of Commerce interesting itself in the further cultivation of rubber. A company engaged in Ceylon rubber growing declared a dividend of 60 per cent in the fifth year of its existence. With the object of bringing before the British public and the colonies the importance of developing native products in the colonies, the Liverpool Chamber of Commerce invited Mr. Herbert Wright, of the Ceylon Botanical

Department, an acknowledged authority on rubber production, to address the chamber on the subject. In the course of his speech Mr. Wright said:

To-day, in the Indo-Malaya region alone, we have nearly one-quarter million acres of land planted with or prepared for rubber trees. In a few years Ceylon alone may be expected to send from 5,000 to 7,000 tons of rubber annually, and the Indo-Malayan region can promise ultimately to supply more than the whole of Africa exported in the year 1906. In the East there has been more land planted with or bought for rubber trees during the last two years than in the previous twenty years, and the diverse conditions under which the various rubber-yielding species can be profitably grown will allow of extensive cultivation in the near future. Already there are over 100 rubber planting companies, and British capital alone has been thus invested to the amount of several million pounds sterling.

In the cultivation of caoutchouc-yielding plants our eastern possession have led the way, and it is to the credit of the Indian government and Kew Gardens that such good results have been rendered possible with species from regions so distant as West Africa, the Amazon Valley, the State of Ceara, and Mexico. On the chemical side much might be said, though it is perhaps dangerous to make many deductions from the empirical records of chemical analyses at present available. It is not sufficient to state the percentages of resinous, albuminous, mineral, and caoutchouc contents; it appears to me to be necessary to distinguish the components in each of these groups, to explain what differences exist between the protod matter which is normally included in the coagulated rubber and that remaining in solution in the serum; to distinguish between the resins and even caoutchouc globules in trees of different ages, and in the latex from different species.

NEW GUINEA.

AUSTRALIAN GOVERNMENT FOSTERS ITS PLANTING ON THE ISLAND.

Following his previous article in *Consular and Trade Reports*, in regard to the cultivation of rubber and sisal hemp in British New Guinea (Papua), Consul-General J. P. Bray, of Melbourne, further reports as follows:

Considerable interest is now being evinced in commercial circles in Australia as to the possibilities of those two industries, and the Australian government is encouraging settlement there with a view to their rapid development. A syndicate comprising some leading Melbourne business men has just been formed with a capital of \$150,000, and has acquired from the Commonwealth Government (which controls British New Guinea under the Papua act passed November 16, 1905) a lease of 6,000 acres of land near Rigo with the intention of immediately commencing the cultivation of rubber for which the country is so well adapted.

The members of the syndicate estimate that from 200 to 250 rubber trees can be planted on an acre. After the sixth year they will yield 1 pound per tree, and at the tenth year, when in full bearing, the yield is about 4 or 5 pounds per tree. The present price of rubber is \$1.39 per pound, so that the yield will be about \$730 per acre when the trees are in full bearing. The land is near the coast. A manager has already been appointed, and the work is to start at once, seed having been ordered from the Malay States. Rubber grows wild in Papua, and there are considerable quantities of it on the plantation taken up there.

Under the Papua act mentioned, land may be leased under agricultural-improvement conditions, which stipulate that one-fifth of

the land suitable for cultivation shall within five years be planted with suitable plants prescribed by regulation; two-fifths shall be planted in ten years, and three-fourths in twenty years, and for the remainder of the term three-fourths of the land shall be kept planted. The rent is to be determined at 5 per cent per annum of the unimproved value of the land, but no rent is payable for the first ten years, and it is limited to 12 cents per acre during the second ten years. Every twenty years a reappraisal of the land will take place for the purpose of determining the rent; but if on reappraisal the rent is raised by more than one-third the lessees may disclaim the lease, and shall be entitled to claim compensation for improvement.

NICARAGUA.

DAMAGED RUBBER TREES RENEWING THEMSELVES.

Consul F. M. Ryder, of Bluefields, advises that the production of rubber from the cultivated plantations in that district of Nicaragua will be limited this season, on account of the damage done to the older trees by the hurricane last fall. He writes:

Where these trees have been blown down, but not uprooted, they are sprouting freely. About six of these shoots are permitted to remain, and many of these are now 5 to 7 feet in height, while their roots appear to be forcing their way through the trunk of the parent tree into the ground beneath. It is claimed these sprouts will mature quickly, being nourished by so large a body. Consequently, if the theory holds good, then the increase in the number of trees in the plantations will be considerable, and the hurricane, instead of being destructive, will prove a blessing in disguise, for rubber experts here generally were of the opinion that their plantations had been completely ruined, while much to their astonishment they find that a kind Providence has doubled the number of trees upon their holdings without the effort on their part of planting and cultivating.

About 600 pounds of a superior quality of rubber has just been brought down from the Manhattan plantation, and tree tapping will continue there for another month. Shipments from this plantation will aggregate about 1,200 pounds this season, which is considered a fair yield under the conditions. This rubber is equal to double the quantity from other plantations, as it is free from all impurities, having been put through a process which excludes all foreign substances, leaving the product a practically pure rubber. The Horter Culture Company has also shipped some 1,800 pounds from their plantation, which was of a good quality and a satisfactory crop.

INDIA.

CROPS IN ASSAM AND CEYLON.

Consul E. H. Dennison writes from Bombay that rubber is not grown in that section of India. He continues:

Experiments in rubber growing have been tried in Assam by the British colonial forest department and 14,010 pounds were produced from the *Ficus elastica* during the last fiscal year. In Burma also the

government is trying to encourage the growing of rubber and a beginning has been made.

The growth of the rubber trade of Ceylon has been phenomenal. The total of Ceylon-grown rubber was 168,247 pounds in 1905, which rose to 327,028 pounds in 1906. The great bulk of this rubber is shipped to Great Britain, the United States, and Germany in quantities in their order named. It has been proved that large rubber tracts of India's humid coast are favorable for rubber production, but so far little has been done to develop the industry.

STRAITS SETTLEMENTS.

ECONOMICAL METHOD OF EXTRACTING THE FLUID FROM TREES.

Consul-General D. F. Wilber forwards a newspaper clipping from Singapore on rubber tapping, of which the following is an extract:

Various experiments have been carried out during the last few years in Ceylon and Malaya to determine the most satisfactory and economical method of tapping rubber trees. During 1906 groups of 40 trees were tapped, mornings only, on single and full herringbone methods, during twenty-five days. In groups of single cuts 1,216 and 1,823 fluid ounces of latex were obtained; in the full herringbones 1,703 and 2,816 and 3,385 ounces of latex were obtained, giving a total of 154 pounds of dry rubber. The trees averaged 37½ and 38½ inches. There was a period of rest of four months given the trees, and the average gross yield per tree was 2 pounds and 4½ ounces.

In a trial of spiral tapping on a tree girthing 112 inches, from the first-period tapping 531 fluid ounces of latex was obtained, giving 9 pounds of rubber; from the second-period tapping, one month later, 433 ounces of latex gave only 4 pounds and 15 ounces of rubber. It can not be too strongly pointed out that too frequent or prolonged tapping is injurious and only produces inferior rubber. In Brazil rubber trees are only tapped for one period of the year, doubtless owing to the country being flooded. The long interval of rest may represent well-matured or well-oxidized caoutchouc, and partly explains the preference for Brazilian rubber.

TARIFFS.

CHANGES AND REGULATIONS.

CHINESE EMPIRE.

IMPORTATION OF ARMS AND AMMUNITION.

Deputy Consul-General Albert W. Pontius, of Newchwang, China, transmits under date of January 25, 1907, a copy of the following customs notification in regard to the importation of arms and ammunition. The regulations apply to the whole of China.

IMPORTATION OF ARMS AND AMMUNITION.

In accordance with instructions received through the inspector-general of customs, notice is hereby given that the importation of arms and ammunition will be allowed only under the following rules:

No permit can be given to import arms and ammunition except on receipt by the customs of the superintendent's authority, issued after application, specifying accounts, etc., and which shall have been submitted through the commissioner, under the following conditions:

1. Any foreign resident of good repute may import for personal use at one time—1 gun for sporting purposes, 1 weapon for self-defense, 1 rifle for drilling or shooting competitions, and 500 cartridges.

2. A foreign firm may not import at any one time more than 6 sporting guns and 12,500 cartridges. The importers must give bond not to sell to suspicious characters and keep a record, open to inspection by the customs, of all arms and ammunition sold—when, and to whom, and for what use.

3. A foreign firm may import samples of firearms and ammunition to be offered for sale to the Chinese Government—not more than 2 specimens of each kind of arm and 1,000 cartridges at one time—but must give a bond not to dispose of them otherwise.

4. Duty is leviable on all arms and ammunition at the rate of 5 per cent ad valorem.

RATES IN OPEN CITIES.

Consul-General Straight, at Mukden, Manchuria, reports as to the interpretation which has been agreed upon with China under the treaty of 1903 as to the rate of taxes to be charged on foreign goods destined to "open cities."

Shipments of foreign goods to "open cities" can be made on payment of a 5 per cent ad valorem duty, in the case of coast cities, and an addition of 2½ per cent when the goods are designated to open cities inland.

The only open inland cities so far established are Mukden and Antung.

HAITI.

COMMERCIAL TREATY REDUCES DUTIES ON FRENCH PRODUCTS.

United States Minister H. W. Furniss, writing from Port au Prince, Haiti, February 23, 1907, transmits a copy of the commercial treaty recently concluded by that country with France. The treaty provides for mutual reductions of duty, which are to remain

in force not less than three years from the date of ratification of the treaty. The new rates were provisionally put in effect on January 31, 1907. The minister says:

"Some of the articles upon which Haiti grants an abatement of 33½ per cent have come in considerable quantities from the States, and so large an abatement will tend to prevent further importation from the United States in those lines; but the greater part of the articles exported from the United States for Haiti are not affected by the treaty."

The following is a translation of the principal provisions of the treaty:

ARTICLE 1. The Haitian products enumerated in Table A, annexed to the present treaty, shall benefit, when imported into France and Algeria, by the lowest customs dues applicable to similar products of any other foreign origin.

ART. 2. The natural and manufactured products of France and Algeria enumerated in Table B, annexed to the present treaty, shall benefit, when imported into the Republic of Haiti, by a reduction of 33½ per cent—i. e., one-third of the total amount of the principal (original duty charge enacted), wharfage, weighing, viséing, and of the surtaxes of 50 per cent and 33½ per cent provided for in the Haitian minimum tariff as the said minimum tariff is fixed by the law of September 6, 1906.

ART. 3. French wines imported in barrels shall pay one-fifth of the present duty.

Champagne and those called sparkling wines shall pay one-third of the present duty.

ART. 4. In order to be admitted to the favored treatment stipulated in Articles 1, 2, and 3, the products and merchandise of the two countries should be accompanied by a certificate of origin.

The certificates of origin shall be issued in Haiti and in France by the competent authorities, viséed free of charge by the Haitian or French consul at the port of shipment.

The certificates of origin shall be issued either on the presentation of the declaration by the producer or the manufacturer of the products, or by his agent or proxy, mentioning that the merchandise is really the product of his manufactory or industry, or on the declaration of a licensed merchant presenting the original invoices relative to the merchandise.

The certificates of origin shall mention, besides the number of packages, their distinguishing marks, numbers, gross weight, and contents, the name, residence, and dwelling of the producer or manufacturer, when the latter shall have made the request directly; if the certificates of origin are issued on the request of an agent, there shall be added to them the same references relative to the latter; if they are issued on the request of a licensed merchant, they shall indicate his name, residence, and dwelling.

The certificates of origin issued in France shall bear, in addition to this, the notice by the custom-house at the port of shipment that the goods are not in transit or coming from any bonded warehouses.

ART. 5. The principal duties of the Haitian tariff for the articles enumerated in Table B, those applicable to French wines of any origin and the tonnage dues, shall not be increased during the duration of the present treaty. The high contracting parties pledge themselves to grant to each other all advantages of reductions of customs duties that either one of them may make to a third nation on the products and merchandise enumerated in Tables A and B annexed to the present treaty.

ART. 6. The present treaty shall be ratified by the two Governments as soon as it can be done; the ratifications shall be exchanged at Paris. It shall enter into effect one month after the date of the exchange of ratifications and shall remain in force during a period of three years from the date it is put in force.

Six months before the expiration of the said period of three years, the one of the two contracting parties who shall have the intention of terminating the effects of the present treaty, shall notify expressly the other contracting party. In case that the notification shall not have been made at the aforesaid time, neither by one nor the other of the two contracting parties, the present treaty shall remain in force until the expiration of a period of six months after such denunciation.

ADDITIONAL ARTICLE.

On account of the impossibility of arranging before January 31, 1907, the ratification of the treaty of commerce signed on this day, the Haitian Government pledges itself to put into execution provisionally the stipulations of the said treaty dating from the above date. On its part, the French Republic, conformable to the terms of the law of February 20, 1903, will apply provisionally to the produce of Haiti the duties inscribed in its minimum tariff for these products.

To avoid in the future all false interpretation of Article II of the commercial treaty signed at Port au Prince January 30, 1907, it is clearly understood that in case of modifications made in the present tariff of the duties, the French merchandise enumerated in Table B, annexed to the said treaty, shall be always reduced relatively to the same foreign merchandise in the same proportion of 33 $\frac{1}{3}$ per cent (one-third) on the whole amount of the bill.

TABLE B.—*French merchandise that shall be entitled, on importation into the Republic of Haiti, to a reduction of 33 $\frac{1}{3}$ per cent of the duty provided by the Franco-Haitian treaty of January 30, 1907.*

Articles.	Enumeration.
Furniture and objects of art.	Chandeliers, statues, bed quilts, mosquito nets and curtains of all kinds, pictures, rugs for floor or table, furniture, wardrobes, sideboards, settees, parlor chairs, dining-room chairs, armchairs, bedsteads, tables, garden vases.
Articles for wine cellars.	Corks, capsules for bottles, labels.
Military goods.	Shoulder knots, sashes, helmets, cocked hats and hats to be cocked, braids, sword knots, scarfs, officers' swords, epaulets, ornaments, galloons, cartridge boxes, knapsacks, coats, dolmans, caps, stripes, plumes and feathers, knots, sword belts, caparison, swords, tunics.
Religious articles.	Holy-water fonts, calices and patens, pyx, candles, chaplets, crosses and crucifixes, images, prayer books, church ornaments and vestments for clergy, monstrances, cassocks, scapularies, statues and statuettes, church pictures.
Scales	
Building material.	Flooring tiles, cement, slate.
Jewelry, imitation and real.	
Biscuits	
Beverages	Bitters and quinquinas, cider, cassia, brandy, guignolet, liqueurs, sirups and vermouth, wines in bottles and barrels.
Empty boxes and bags of cardboard or paper.	
Wax candles	
Brushmakers' wares	Brushes of all kinds.
Toys	
Type for printing.	
Shawls of all kinds	
Hats	Basque caps, caps, hats.
Coppersmith wares	Apparatus for distilling, and all accessories.
Underwear, haberdashery, and gloves.	Socks and stockings, caps, drawers, shirts, neckties, shirt bosoms, collars and cuffs, silk handkerchiefs and imitations, gloves, vests of flannel, of wool and cotton, mits, handkerchiefs.
Blacking	
Ready-made clothing	Vests, pantaloons, jackets, Prince Albert coats, sacks, evening dress suits, qvercoats, suits for children and youths, dresses, skirts, bodices.
Confectionery.	
Alimentary preserves	All kinds of preserved food, fruits dried or preserved in brandy, in sirup, in natural juices, or in vinegar.
Footwear	Half shoes, boots, laced or buttoned shoes, elastica, lasts, eyelets, slippers, shoes.
Corsets	
Cutlery	Pocketknives, scissors, table knives, razors, pruning shears.
Leather and skins, worked.	
Mineral waters	
Essences for making soaps, perfumery, and liquors.	
Fans	
China and porcelain	
Cheese	
Oils	Almond and olive oils.
Images, assorted.	
Instruments	Musical, surgical, and mathematical.
Lamps and accessories	Lamps, lanterns, chimnies for lamps.
Vegetables and fruits	Almonds, garlic, onions, potatoes.
Books and stationery	Geographic and hydrographic atlas, etc., binders, copy books for scholars, methods, music books, memorandum books, marine and geographical maps, paper ruled for music, sealing wax, pencils, inks, inkstands, engravings, books, letter paper, paper for schools, for plans, drawings, and music, pens, penholders, copying paper, rulers for office, slates for schools.

TABLE B.—French merchandise that shall be entitled, on importation into the Republic of Haiti, to a reduction of 33½ per cent of the duty provided by the Franco-Haitian treaty of January 30, 1907—Continued.

Articles.	Enumeration.
Lingerie.....	Caps for baptism and for infants, bed sheets, collars for ladies and children, tablecloths, napkins, pillowcases.
Notions.....	Buttons of all kinds, belts of all kinds, garters, suspenders, thimbles, pins of all kinds, sewing silk, wool yarns, cotton thread in balls, shoemakers' thread, shoe strings.
Mirrors.....	Looking-glasses and mirrors.
Millinery.....	Hats trimmed or untrimmed, collars of lace and other material, laces, insertions and embroidered bands, mufflers and tippets, artificial flowers, cords, trimmings for hats and dresses, cloaks, feathers and birds for hats, ribbons, veils.
Tombstones.....	
Optical goods.....	Magnifying glasses, spyglasses, opera glasses, lorgnettes, spectacles, glasses for eyeglasses or lorgnettes.
Wall paper.....	
Umbrellas.....	Umbrellas, parasols, sunshades, canes.
Perfumery.....	
Alimentary pastes.....	
Combs.....	
Paints.....	Dry or ground paints (oil or water).
Pipes.....	Pipes, cigar holders.
Printing presses.....	
Pharmaceutical and chemical preparations.....	
Plums and prunes.....	
Hardware.....	Iron or clay pots for kitchens, wire nails, spoons and forks, enameled tinware.
Bags.....	Empty bags for shipping purposes.
Soaps.....	Castile soap.
Saddlery.....	Saddle frames, stuffing, mounted or unmounted bridles, saddle cloths, riding whips, spurs, whips, harness, finished saddles.
Tobacco.....	Cigarettes and cigarette paper.
Textiles.....	Alpaca, dimity, cambric, cashmere, canvas, woolen twills, crapes, cretonnes, drills, linings, cloths, Vichy (variety of drill), zephyr stuffs, materials for pantaloons, flannels, gauze, cotton prints, fine linen cambric, cotton cloth, merinos, muslins, nainsooks, plush, percales, satins, satinettes, serges, silks, linen, linen damasks, velvet.
Vinegar.....	
Glassware.....	Bottles, demijohns, vials, glasses, window glass.

INDIA.

DUTY ON SPIRITS IN UNITED PROVINCES.

According to a report from Consul-General W. H. Michael, of Calcutta, the United Provinces government has, under the excise act of 1886, fixed the duty upon colored rum, brandy, whisky, and gin removed for consumption within the Punjab and Northwest Frontier Province from any licensed distillery in the United Provinces at \$2.33 per imperial gallon, or six quart bottles, of the strength of London proof, the duty to be increased or reduced in proportion as the strength of the spirit exceeds or is less than London proof. The duty payable upon spirit which has been rendered effectually and permanently unfit for human consumption is not affected. The new duty took effect from April 1, 1907.

JAPAN.

REDUCTION OF DUTY ON COTTON SEED.

United States ambassador to Japan, Luke E. Wright, reports, under date of April 10, 1907, that the bill for the amendment of paragraph 23 of the Japanese import tariff law, so as to abolish the duty on cotton seed, has been amended and has now become law. As amended, the law provides for a reduction of the present duty of 20 sen to a duty of 10 sen per hundred kin (\$0.0498 per 132.277 pounds), and is to take effect on October 1 next.

LAW RELATING TO DRAWBACKS ON SUGAR.

Ambassador Luke E. Wright, at Tokyo, Japan, transmits under date of April 11, the following translation of the amended Japanese law granting drawbacks of duty on sugar:

LAW No. 26.

The law relating to rebates on imported crude sugar is amended as follows:

Article I, paragraph 1, is amended as follows:

Those who have, with the consent of the Government, manufactured refined sugar or rock candy out of imported crude sugar below grade 15, Dutch Standard, may apply to the Government for drawback on the quantity of the material (crude sugar) less such portion of the product as does not come up to grade 15, Dutch Standard, at the following rates:

I. When the products are to be consumed at home:

(a) One yen forty-five sen (\$0.72) per 100 kin (132 pounds) when the material is below grade 8, Dutch Standard.

(b) One yen ninety-five sen (\$0.97) per 100 kin (132 pounds) when the material is below grade 15, Dutch standard.

II. When the products are to be exported abroad:

(a) One yen sixty-five sen (\$0.82) when the material is below grade 8, Dutch standard.

(b) Two yen twenty-five sen (\$1.12) when the material is below grade 15, Dutch standard.

The date "March 31, 1907," in Article IV is amended to "March 31, 1909."

SUPPLEMENTARY ARTICLE.

This amendment shall take effect on April 1, 1907.

In explanation of the foregoing, Ambassador Wright reports as follows:

The present drawback law (law No. 33 of March 25, 1902) provides for the repayment of all the import duty on sugar below No. 14, Dutch standard, to be used for refining or making rock candy by persons who have obtained the recognizance of the Government. These import duties are 1.65 yen per 100 kin (\$0.82 per 132.27 pounds) for sugar below No. 8, Dutch standard, and 2.25 yen per 100 kin (\$1.12 per 132.27 pounds) for sugar from No. 8 to No. 15, exclusive, Dutch standard. The new law for amending the present law, it will be observed, extends the period for granting drawbacks on sugar for two years and provides for refunding the whole duty when the products are to be exported abroad, but for refunding only a portion of the duty when the products are to be consumed in Japan. It applies to all sugar below No. 15, Dutch standard, instead of below No. 14, as in the previous law.

The vice-minister of finance, Mr. Wakatsuki, in introducing the bill into the Diet stated that the situation of the sugar refining industry of Japan was still such that an extension of the drawback system was necessary. Raw sugar had to be imported from abroad, and such being the case protection was necessary to encourage sugar refining and also exportation.

No sugar is grown in Japan, but the production is rapidly increasing in Formosa under Japanese management, the production for 1906 (178,000,000 pounds) being an increase of 50 per cent over the production for 1905 and of 90 per cent over the production for 1898. Formosan sugar is admitted free of duty to Japan, but an export duty is levied upon it when it is exported to foreign countries. At present Formosa furnishes about 15 per cent of Japanese sugar supplies, leaving the remainder to be imported from foreign countries.

FORMOSA.

NEW DUTIES ADOPTED BY JAPANESE GOVERNMENT.

United States Consul-General Henry B. Miller, at Yokohama, Japan, writing under date of March 30, refers to the reduced duty on cotton seed in Japan described in the foregoing report, and supplements it with a report of the new duties for Formosa promulgated in the Official Gazette of March 30 as Law No. 30, which is to take effect October 1, 1907. The duties are as follows:

Fish for hatching purposes, 10 per cent ad valorem.

Vegetables and fruits, other than preserved with sugar, molasses, sirup, or honey, and not canned, bottled, or preserved in pot, 30 per cent ad valorem.

Chinese vermicelli made of wheat, barley, or rice flour, 2.25 yen per 100 kin (\$1.125 per 132.277 pounds).

Ginseng, not exceeding 30 roots per 1.32277 pounds, \$3 per 1.32277 pounds.

Ginseng, other than described above, \$0.50 per 1.32277 pounds.

Cotton, raw or ginned, \$0.65 per 132.277 pounds.

Waste and old cotton, \$0.275 per 132.277 pounds.

Old gunnysacks, \$0.60 per 100.

Chinese paper, other than for writing or drawing, \$0.50 per 132.277 pounds.

Bricks, not enameled, \$0.025 per 132.277 pounds.

Torn or broken pieces of earthen, china, or cloisonne ware or of bricks, free.

MOROCCO.

REGULATION FOR THE COAST TRADE.

The Department of State is advised by the American minister at Tangier that the authorities of Morocco recently issued orders for putting into immediate execution article 69 of the general act of Algeciras, relating to free coast trade in Morocco, which reads:

In accordance with the previous decisions of His Shereefian Majesty, and notably the decision of September 28, 1901, the transportation is allowed by coasting vessels between all ports of the Empire of cereals, grains, vegetables, fruits, eggs, poultry, and, in general, of merchandise and animals of every kind, of Moroccan origin or not, except horses, donkeys, and camels, for which a special permit from the Maghzen will be necessary. Such coasting trade may be carried on by vessels of every nationality without such articles being subjected to payment of the export duties, but subject to the special taxes and regulations relative thereto.

NICARAGUA.

INCREASE OF DUTY ON ALCOHOLIC BEVERAGES.

United States Consul Frederick M. Ryder, at Bluefields, Nicaragua, reports, under date of April 9, 1907, that when the import duties were increased, by virtue of the decree published June 6, 1905, and made effective September 7, 1905, for the purpose of creating a fund for educational purposes, a protest was entered by a foreign firm of Bluefields against the prescribed increase of duties on beer, wines, and liquors, claiming that this was in direct violation of the terms of their contract, wherein the Government agreed not to alter the duties upon the liquors specified during the term of such contract. Consequently, after the Government had collected

the increased revenue for about three months, collectors at ports along this coast received instructions not to impose or collect these duties in the future.

Now, however, as this contract has expired by limitation, the increased duties specified in the above decree became effective April 8, 1907, so that the following import duties must be added to those imposed previous to the above date (duties are per kilo=2.2 pounds):

	Peso.
Beer, in bottles or casks.....	0.04
Cognac, bottled, per centiliter of alcoholic strength.....	.01
Whisky, up to and above 30°, per centiliter of alcoholic strength.....	.01
Wines, bottled, not exceeding 20° test.....	.15
Wines, general, in casks, not exceeding 20° test.....	.25
Wines, dry, bottled, not exceeding 20° test.....	.12
Wines, in casks, not exceeding 20° test.....	.20

In addition to the increase herein mentioned an extra duty of 5 per cent is imposed in lieu of, duties formerly collected by the "Bureau de Revision" at this port.

All duties on the Atlantic coast of Nicaragua are payable in silver pesos, present rate of exchange being 48 cents (U. S. currency) per peso.

SERVIA.

COMMERCIAL TREATIES WITH GREAT BRITAIN, FRANCE, AND ITALY.

During the months of January and February of the current year Serbia concluded new commercial treaties with France, Italy, and Great Britain, by which the rates of the general tariff of Serbia have been reduced on several commodities. The treaty with France was put in force March 11; that with Great Britain March 15; that with Italy still remained unratified on March 15, the date of writing of the report of Consul M. K. Moorhead. The consul writes:

"Treaties have been concluded with Russia, Roumania, and Switzerland, but the texts are not yet available.

"It will be noticed that under the convention with Great Britain agricultural implements and machinery are placed on the free list, and that the duty on cotton goods is greatly reduced. This should result in a great increase of the sales of such articles in Serbia, and it will pay American exporters to make an effort to get a foothold in this market."

The rates of duty agreed upon in the three treaties mentioned have been published in pamphlet form, copies of which may be obtained from the Bureau of Manufactures.

TURKEY.

COTTON-SEED OIL RESTRICTIONS REMOVED.

Telegraphic advices have been received by the Department of State from Minister Leishman, under date of May 27, to the effect that the agreements of the Sublime Porte in regard to the granting of customs immunities have been put into practical execution. It is expected that the removal of the restrictions upon cotton-seed oil will lead to a considerable extension of its use in Turkey. This American product is largely handled through Marseille.

UNITED KINGDOM.

NEW MERCHANDISE ACT COVERING IMPORTATIONS.

The London Commercial Intelligence states that Sir Howard Vincent's merchandise marks act (amendment) bill has gone through the grand committee of Parliament and will probably become law, upon which it comments:

Under the old act the famous "Made-in-Germany" label became in practice a magnificent advertisement for our rivals, and the act had the very opposite effect to that intended by its authors. The operative clause of the measure now reads—

All goods of foreign manufacture bearing any name or trade-mark being or purporting to be the name or trade-mark of any manufacturer, dealer, or trader in the United Kingdom, which by section 16 of the merchandise marks act, 1887, are prohibited to be imported into the United Kingdom unless such name or trade-mark is accompanied by a definite indication of the country in which the goods were made or produced, shall be so prohibited from being imported unless such name or trade-mark is accompanied by the words "Made abroad," and accordingly in subsection 1 of the said section for the words "is accompanied by a definite indication of the country in which the goods were made or produced" there shall be substituted the words "is accompanied by the words 'Made abroad,'" and those words shall be deemed to be a trade description within section 3 of the said act.

ARGENTINA.

PROHIBITION OF IMPORTATION OF MEATS CONTAINING BORIC ACID.

Minister Beaupré, of Buenos Aires, telegraphs to the Department of State, under date of May 15, that the Argentine Government prohibits the admission of ham containing boric acid.

REDUCTION OF DUTY ON SUGAR.

Under date of April 20 Minister Beaupré reports "that in view of the prevailing high price of sugar and of the inability of the manufacturers of this country to supply the amount consumed, an executive decree was issued to-day reducing the import duties on sugar not refined or of less than 96° of polarization to 6 cents per kilo (2.2 pounds). This is a reduction of 1 cent per kilo on the previous duties."

COMMONWEALTH OF AUSTRALIA.

DUTY ON SAMPLES.

According to a report published in the British Board of Trade Journal of May 16, "all samples having a commercial value are charged duty without allowance for any special discount, and it is not proposed to depart from this rule."

TRANSPORTATION.

RAILWAY SYSTEMS.

AUSTRIA-HUNGARY.

THE NEW ASSLING-TRIESTE RAILROAD LINE.

Consul George M. Hotschick, of Trieste, writes that the Assling-Trieste section of the new Klagenfurt-Trieste line was opened a few months ago. He says:

Switzerland and south Germany are made accessible to such an extent that this event will mark a new chapter in the development of the principal port of the Austro-Hungarian Empire. Trieste hitherto had the most devious connection inland, compared with Genoa and Venice. Even from regions farther northeast—for instance, Bohemia and Moravia—the trade had an easier access to the Italian ports than to Trieste, notwithstanding this port belongs to the same monarchy as Bohemia and Moravia.

Trieste is now 28 per cent nearer Salzburg and Prague than her rival, Venice, which before the opening of the new road was 18 per cent nearer than Trieste. The distance from Munich to Genoa and Trieste was hitherto equal; now the distance from the Bavarian capital to Trieste is 125 miles shorter than to Genoa. Nuremberg, hitherto 6 per cent nearer to Genoa, is now brought 17 per cent nearer Trieste than to the former. Even Hamburg may feel the competition of Trieste in the central German manufacturing districts, Trieste being now 14 per cent nearer to them than Hamburg.

Hitherto tourists from the United States who chose the southern trip to Europe left the steamer at Gibraltar or Naples, but many, chiefly those who had already been in Italy, now come to Trieste and continue from here their voyage by this new Austrian railway. There can hardly be a more beautiful country than the regions which are made accessible by this new Transalpine railroad. The new railway is owned by the state, and is 130 miles long. There are 49 tunnels, with a total length of 10 miles. There are 50 bridges, one of which, across the river Isonzo, has the longest stone span in the world. There are, besides, as many as 678 smaller bridges and viaducts.

MEXICO.

IMPORTANCE OF NEW WEST COAST LINE.

Consul Louis Kaiser reports that on March 25 the officials of the city of Mazatlan assisted in the formal inauguration of the grading of the Cananea, Yaqui River and Pacific Railroad, concerning which he writes:

The construction and completion of this road will be of the greatest importance to the Republic of Mexico, as well as to the United States. The work of grading the roadbed has been commenced on all of

the important points of the projected line, and is being done under contract for the entire length of nearly 1,000 miles by a Los Angeles firm. It is claimed that in less than two years the port of Mazatlan will be connected with the United States and with the most important railroad lines to the east and north. There is no doubt that it will increase the trade relations with the entire west coast of Mexico, and American exporters will doubtless put forth renewed efforts to gain control of the trade of this much-neglected portion of Mexico.

OPENING FOR AMERICAN TRACK AND EQUIPMENT SUPPLIES.

The following information concerning the building of a railway from Tampico to Mexico City, and the opportunity offered thereby for the sale of American rolling stock, tools, etc., is furnished by Consul Samuel E. Magill, of the former port:

On April 13 the Mexican Central Railway let the contract for the first 31 miles of the roadbed for the short line from Tampico to Mexico City, and work will begin at once. This road, when completed, will place Tampico within twelve hours of Mexico City, over a line but little longer than the shortest line now from Veracruz to Mexico City, and with a lessened grade and curvature more than sufficient to overcome the greater distance. It will open up a new territory from which such native products as fustic, honey, hides, skins, coffee, and sugar will find an outlet to foreign markets through Tampico and give an impetus to the commission and export business of this port, which has been languishing for some years. It will give the residents of Mexico City quick and easy access to the splendid sea bathing, fishing, and hunting for which Tampico and vicinity are famous.

The cost will be many millions of dollars, and the opportunity for selling the necessary grading tools, track equipment, and rolling stock is open to our manufacturers and supply houses. Request for specifications on which to base bids should be directed to Mexican Central Railway Company, Mexico City.

PERU.

PROPOSED RAIL AND RIVER COMMUNICATION IN THE INTERIOR.

The following information concerning the contemplated railways which will give Iquitos, on the upper Amazon, direct communication with western Peru and the Pacific and the field opening up thereby for the sale of American railway supplies and building materials is furnished by Consul Charles C. Eberhardt:

There is no rapid means of transportation between Iquitos and western Peru, and persons who travel between the two districts are obliged to make the trip by water, via Para, Brazil, which requires from two to three months, or to take one of several overland routes, which require from thirty to sixty days, according to delays experienced in obtaining mules, canoes, guides, etc., at the different stops along the journey. That there will before many years be communication by steamer and rail between these two sections of Peru there can be little doubt. I am informed that in northern Peru an American

company has obtained a concession for the construction of a railroad from the Pacific coast to a point on the upper Marañon River to which navigation from Iquitos is possible.

In southern Peru the Government is at present actively engaged in surveys and preliminary preparations for a railroad from Oroya, a point on the Cerro de Pasco Railway, to the navigable portion of the Ucayali River in eastern Peru. This road will be about 320 miles long, principally through a rough, mountainous country, which presents many difficult engineering problems, all of which, however, it seems can be overcome. The work commencing at a point about 15 miles from Oroya, on the Cerro de Pasco Railroad, and extending to a point on the Ucayali River, navigable the year round to the launches which ply out of Iquitos, has been divided into six sections and assigned to separate engineering parties. An American has charge of the first section of 100 miles, while German and Peruvian engineers have charge of the other sections. The party in charge of the work of the sixth section left Lima in April, 1906. They completed their work and arrived in Iquitos December 28; the engineer of which is also authority for the statement that, while there are several points that will require a vast expenditure of labor and capital to overcome, the entire route as proposed is feasible, and the construction of the road is practically assured; in fact, it is planned that active building operations will be commenced during the present year.

This would seem to offer an excellent field for American firms to extend their sales of railroad supplies, building materials, etc.

ECUADOR.

LINE TO BE BUILT TO CONNECT PACIFIC COAST WITH THE CAPITAL.

Consul-General H. R. Dietrich, of Guayaquil, reports that the President of the Republic of Ecuador has contracted for the construction of a railroad from some point (to be determined) on the Pacific coast in the Province of Esmeraldas, via Ibarra and Otavalo, to Quito. The general specifications and provisions are as follows:

The road is to be permanent and first class in all respects; width, 42 inches; all material used to be of superior quality, and traction may be either by electricity or steam. The rolling stock is to consist of 5 locomotives of not less than 45 tons each, 1 special car, 3 first-class passenger coaches, etc. Provision is made for the construction of a telegraph line, 2 light-houses, various docks, piers, etc. Work must begin within one year, and the road must be completed within seven years. Material for construction will be admitted duty free.

The right to locate and exploit mines in the territory through which the road runs will be subject to the general laws treating of mines. The cost of the road must not exceed \$20,000 per kilometer (kilometer=0.62 mile), and the amount to be expended for docks, etc., will be determined by a joint commission. The Government of Ecuador will pay 5½ per cent per annum on the sum total of the cost of the road, wharves, piers, etc., and this interest will be guaranteed by the customs receipts of the ports of Tulcan and Esmeraldas for a period of thirty-three years from the date that the road is delivered to the Government. It is provided that this interest will be paid out of a fund derived from one-half of the gross earnings of the road, but in case this fund is not sufficient the Government will make up the deficit. Should the fund named more than suffice for the payment of the interest on the whole capital invested, two-thirds of the surplus will be paid to the company. The other one-half of the gross earnings will be apportioned to the payment of the operating expenses.

Tap roads may be built and operated by the company, but the Government will retain an option on such lines on the same terms as for the main road. Unclaimed public lands will be granted to the company for purposes of colonization on favorable terms to the company and to the colonists.

[The name of the concessionaire is on file at the Bureau of Manufactures.]

Consul-General Dietrich furthermore writes that advices from Quito, under date of March 26, 1907, state that a contract has been signed ad referendum by the minister of the interior authorizing the formation of The Eastern Ecuador Exploration Company, to be incorporated in London or some other place approved by the Government of Ecuador.

INDIA.

RECEIPTS AND EXPENDITURES—SHORTAGE OF ROLLING STOCK.

Consul-General W. H. Michael, of Calcutta, furnishes a report on Indian railways, concerning which he writes:

During 1907-8 the government of India proposes to raise a loan of \$30,000,000, to be expended on railways and irrigation works. The total railway receipts in 1905-6 amounted to \$127,740,000 and the expenditures to \$117,730,500, a net gain for the government of \$10,009,500. The net profits from the state railways amounted to \$11,388,000; the net loss from the guaranteed railways was \$1,228,000, and the loss from miscellaneous railways was \$150,500. There is much complaint by the public on account of what is characterized as a shortsighted and dilatory policy on the part of those who have control of the railways in not providing more rolling stock. On account of a shortage of freight cars the traffic has been congested at many places.

OCEAN LINES.

CANADA.

PROPOSED BRITISH EMPIRE MAIL SERVICE.

Consul-General John G. Foster makes the following report from Ottawa on the plan for a fast British mail service via Canada to Australasia:

Much interest is expressed at the Dominion capital and in the newspaper press throughout Canada in the resolution adopted at the closing session of the Imperial conference in London, England, on May 14 concerning the establishment of a British mail service from the United Kingdom to Australasia by way of Canada. The resolution was moved by Sir Wilfrid Laurier, the Dominion premier, and reads as follows:

That in the opinion of this conference, the interests of the Empire demand that, in so far as practicable, its different portions should be connected by the best possible means of mail communication, travel, and transportation, and that to this end it is advisable that Great Britain should be connected with Canada and through Canada with Australia and New Zealand by the best service available within reasonable cost, and that for the purpose of carrying the above

project into effect, such financial support as may be necessary should be contributed by Great Britain, Canada, Australia, and New Zealand in equitable proportions.

The service indicated by the discussion would be three 25-knot steamers on the Atlantic route, making the passage between British and Canadian ports in four days' time, and a fortnightly service by 18-knot steamers on the Pacific. The time required for the journey from England to Australasia would be approximately twenty days.

DIVISION OF EXPENSE.

To obtain this entire service it is proposed that the British, Canadian, New Zealand, and Australian governments should join on an equitable basis in guaranteeing a reasonable return on the required capital invested or in paying such subsidies as may be necessary. It has been suggested that an annual subsidy of \$5,000,000 for ten years might be sufficient for the total service. Of this sum it is assumed that about \$2,225,000 would be provided for the Atlantic route.

It seems to be the opinion that the Atlantic route, at least, should be independent of all railway systems, open to all on equal terms. The proposed service would be primarily a mail service, but, incidentally, a reduction in freight charges is expected, which would give an indirect form of preference to British colonies, and some diversion of the traffic now going by way of New York is also anticipated.

The claim is made by some in Canada that this service would furnish special facilities for immigrants at permanently low rates and that this fact, as well as the shorter voyage, will be strong inducements to a better class of British emigrants.

AUSTRALIA.

RENEWAL OF VANCOUVER MAIL CONTRACT.

Consul-General J. P. Bray, of Melbourne, furnishes a newspaper clipping treating on the Vancouver-Australian mail line, the government contract with which he says is expected to be renewed in July at an advanced subsidy rate. The article, in part, says:

The question of communication between Australia and America across the Pacific has been under consideration for some time, and the recent developments in connection with the threatened stoppage of the Oceanic Steamship Company's service is likely to hasten a settlement. The Oceanic Company's service consisted of three steamers, and although a subsidy of about \$300,000 was paid by the United States, the movements of these vessels have been most irregular, and as far as New Zealand and Australia are concerned almost useless. The average quantity of mail matter sent from Australia in a year is 81,000 pounds, of which 8,000 pounds are letters and post cards. The suspension of this service would be a serious consideration for Australia and New Zealand, although up to the present these Governments have been no parties to its maintenance.

As an alternative there is the Brisbane-Vancouver route, the contract for which expires in July. Ministers have been giving some attention to the renewal of this contract, for which the Commonwealth of Australia pays about \$133,000 and Canada nearly \$185,000. The journey from Sydney to Vancouver takes twenty-one days. The provision of 16-knot steamers would reduce the time by nearly three days. A suggestion has been made that a subsidy of \$550,000 should be paid for a rapid service from Sydney to New Zealand and Vancouver. Of this Canada would pay \$250,000; New Zealand, \$200,000, and Australia \$100,000.

NEW STEAMSHIP LINE FROM FRANCE.

It is reported that arrangements have been completed for the formation of a new steamship service between the northern ports of France and Australia, also writes Consul-General Bray, who adds:

The company operating the line is to be known as the Lloyd Français, and the fleet is to consist of five steamers of 7,000 tons each, which will be devoted exclusively to the carriage of cargo. The establishment of the new service has been consistently advocated by the French commercial firms in Australia for several years, and it is largely due to their exertions that regular communication is at last to be effected.

NEW ZEALAND.

PROJECTED STOPPAGE OF MAIL SERVICE—TRADE AFFECTED.

Consul-General William A. Prickitt reports that the announcement that the United States Government has received formal notification from the directors of the Oceanic Steamship Company of the projected withdrawal of their steamers from the San Francisco and Australasian mail service has caused a feeling of sadness in Auckland. He continues:

The growing trade of this city with San Francisco will receive a rude setback. It will be a severe check to our flourishing trade with all of British Australasia, for, in this competitive age, an efficient and quick mail service is a very important factor in getting and retaining business. Our commerce with the territory affected by the mail service to be suspended is important.

According to statistics the total trade of the United States with British Australasia for the year ended June 30, 1906, was \$40,516,560, the exports being \$29,001,147 and the imports \$11,515,413. This shows a balance in favor of the United States of \$17,485,734. New Zealand's part of the trade is shown in the following statement:

Year.	Imports from United States.	Exports to United States.	Total trade.
1898.....	\$2,464,200	\$1,632,945	\$4,097,145
1905.....	7,192,505	3,581,505	10,774,010

The balance of trade in favor of the United States in 1905 was \$3,611,000, while the increase in total trade in the last ten years amounted to over 250 per cent. It is greatly to be regretted that this splendid growing commerce should be allowed to languish for the lack of an adequate mail service, to say nothing of the loss of prestige which would be occasioned by the withdrawal of the only line of steamers trading with Australasia flying the American flag. If the present service should be suspended, mail matter to the United States would have to be sent via England or Vancouver, taking much longer time, very much to the disadvantage of our merchants engaged in the Australasian trade.

NEW ZEALAND'S INTEREST.

New Zealand, too, should be very much interested in an up-to-date passenger and mail service to San Francisco, for in addition to communication with London in the shortest time and the important trade relations the colony is being visited each year by increasing numbers of tourists from America who spend their money freely. Now that it is announced that the present line is about to be withdrawn, it is realized and admitted that New Zealand's share of the amount paid for carrying the mail between Auckland and San Francisco is too small. Thirty-seven years ago it paid \$250,000 per annum for a four-weekly service, taking thirty-eight days between New Zealand and London, while during the last six years it has been getting a three-weekly service, taking about thirty days, for less than \$100,000. It would like, however, to have a line established under the British flag.

What is a loss to the United States will undoubtedly be a gain to Canada. That commonwealth is exerting itself to promote trade relations with Australasia, and particularly with this colony. It has taken the trouble and expense to put up a fine building at the Christ Church exhibition and has an attractive display of the products of the Dominion. The United States, with nearly twenty times the trade with New Zealand, did nothing.

NORWAY.

LAWS REGARDING INVESTMENTS IN VESSELS BY FOREIGNERS.

For the benefit of Americans who intend to invest in Norwegian ships Consul F. S. S. Johnson, of Bergen, makes the following statement:

A foreigner can not legally hold shares in his own name in a Norwegian ship except when the same is formed as a joint stock company. In Bergen there are no such companies for several reasons, the principal one being that the taxes on such companies are very high. If a foreigner has held shares in Norwegian ships in the name of a Norwegian subject it has been a matter of confidence, and the foreigner has had no legal security, unless he has a mortgage bond on the share in question, but in most cases people here object to having shares in their names mortgaged. The foreigner has not as yet paid any taxes at Bergen on his shares, as the taxing authorities were unable to see how many shares a person had in a ship; but in the future they will be able to do so, as all Norwegian ships must be entered into the public register before the end of the year, with an indication of each owner's shares, which will consequently be taxed. The Norwegian subject who was the nominal owner of a foreigner's shares would be taxed for the same, and he would hardly be able to tell how much of such taxes ought to fall on the shares, as the estimation of his income is not specified by the taxing authorities.

FOREIGNERS PROTECTED THROUGH SECURITY COMPANIES.

Therefore to enable foreigners to participate in Norwegian ships in a form which gives them protection there has been formed in the vicinity of Bergen several security companies. The arrangement is

made in the following manner: The share in question is inscribed in the name of a security company, which gives a mortgage bond on the same share for a sum not exceeding the value as estimated by the Norwegian Veritas; this mortgage bond is to be recorded in the public register. The security company authorizes the foreigner to whom the mortgage bond has been given or his representative to receive the dividends paid on the ship, only reserving itself about 6 per cent to pay all taxes and expenses. Besides this, the mortgage bond expenses, which are only a trifle, will have to be paid.

The security companies undertake no personal liability; that is to say, the owner of the mortgage bond can never ask more than the share or its value in case of sale as payment of the sum mentioned in the mortgage bond. If the foreigner, who in this manner has a perfect lien on the share, should wish to withdraw from the concern, he may do so in two ways. By giving several months' notice he may call the capital mentioned in the mortgage bond. The share will then have to be sold and he receives the proceeds of the sale. He may also sell his mortgage bond and hand it over to another, who then enters into his rights.

AUSTRIA.

GOVERNMENT SUBSIDIES TO SHIPOWNERS AND SHIPBUILDERS.

The following information relative to the law enacted at the last session of the Austrian legislature to further the interests of the merchant marine of the Kingdom has been furnished by Consul George M. Hotschick, of Trieste:

The law of February 23, 1907, authorizes the Government to pay to shipowners subsidies according to the tonnage of the vessels and the number of miles which they navigate. The allotments under this head are as follows: For 1907, \$852,600; 1908, \$893,200; 1909, \$954,100; 1910, \$1,015,000; 1911, \$1,075,000, and during the ensuing five years, ending December 31, 1916, until which time the law will remain in force, \$1,136,800 per year.

The same law grants shipowners for vessels which are launched after July 1, 1907, the following subsidies: (a) For steamers built of iron and steel, \$8.12 for every ton weight of the body of the vessel; (b) for sailing vessels built of iron and steel, \$2.84 for every ton weight of the body of the vessel; and (c) for ship engines, new boilers, new pipes, and auxiliary engines of all kinds for vessels, \$1.62 per 220.46 pounds.

These subsidies are granted if 50 per cent of the material of which the ship is built is home product. If the percentage is a higher one, the subsidies are increased. The subsidy for shipbuilding is limited to \$203,000 per year.

INCREASED STEAMSHIP SUBSIDIES.

The Austrian Government, according to Consul George M. Hotschick, of Trieste, has increased its annual subsidy to the Austrian Lloyd Steam Navigation Company from \$1,181,460 to \$1,486,586 for a period of fifteen years. The new contract calls for an increase of speed to the Levant and the Orient, and the Government refunds the toll fees paid by the Lloyd for the passage of its ships through the Suez Canal. The steamship company also agrees to pay into the

pension fund of its employees and workmen a minimum of \$50,750 annually, and not later than 1910 is to institute an insurance fund for the aged sailors of the crews of its ships.

STRAITS SETTLEMENTS.

ADVANCES IN CHARGES FROM SINGAPORE TO NEW YORK.

Consul-General David F. Wilber reports as follows from Singapore on the shipping question between the Straits Settlements and America:

Since the formation of the shipping combine, known as the New York Conference, composed of different steamship lines, all under foreign flags, which control, through the rebate system, all freight to Atlantic coast ports in the United States from this part of the world, the rates on all cargo have been materially advanced at different times. Early in the year 1904 rates on freight to the United States, via Suez Canal, were as follows: On tin, \$3.65 per ton; general cargo, \$2.43 and \$3.04 per ton. Early in the year 1905 rates on tin were the same, but on general cargo they had been advanced to \$6.09, double that of the year before. Later tin rates were advanced to \$4.86 per ton, and on August 24, 1906, a further advance on tin to \$6.09 occurred, while rates on general cargo were made the same as to England and the Continent, with the exception of rattan, gutta jeletong, gum in cases, and areca nuts.

On February 26, 1907, rates to English and continental ports were reduced as follows: Tin, from \$8.40 to \$6.09, while on sugar, rattans, and gutta jeletong material reductions were made. A royal commission has been appointed in England to investigate the methods of the combine, called the European Conference, composed of all the lines running out of Singapore, which practically controls all cargo to British ports.

CHILE.

ADVANCE IN PASSENGER FARES FROM VALPARAISO VIA PANAMA.

Consul A. A. Winslow sends the following report from Valparaiso on the advance of steamship rates from Chile to the United States:

The passenger rates between Valparaiso and Panama have been increased from \$185 to \$219 United States currency, now making the rate from this city to New York from \$300 to \$335 via Panama, while the time required to make the trip varies from thirty-five to forty days. There is a slow passenger and freight line between here and San Francisco that makes the run in from ninety to one hundred days, at a rate of \$292. The accommodations are said to be fair.

Via the Straits of Magellan the fare is \$316 and the time about thirty days, while via Buenos Aires over the Andes, in the season from November 15 to May 1, it is possible to make Europe in twenty-five days at a cost of \$170 to \$195 first class. Between this city and Panama there are weekly sailings, while for Europe there are two or three sailings per week. The steamers are much better between here and Europe.

SHIPPING ADVICES.

TURKEY.

CARELESS METHODS OF AMERICANS.

Vice-Consul-General William Smith-Lyte, of Constantinople, states that there are occasions when the terms on which some American firms expect to do business in Turkey, viz, "cash with order," are detrimental to trade and an imposition if the importer's standing is good. He gives the following as an illustration:

An official in a government institution ordered on May 1, 1906, a No. 5 motor with a special patent bronze wheel, to cost \$130, for a small craft about ready to receive it. He remitted cash in advance, and asked the firm who had promised prompt delivery, if they anticipated any delay, to wire him the one word "Delay." When acknowledging receipt of his order, the firm stated that they expected to ship within a week and had therefore not wired him, but if some unforeseen incident should prevent shipment within one week they would wire him "Delay 15." Like most people in Turkey who place orders in the United States, he was very enthusiastic and had great expectations. He persuaded two friends not to place their contemplated orders with England and Germany, but to await the arrival of his machine, which would convince them that it was something out of the ordinary.

On August 23, nearly four months after the placing of his order, having received no news of the shipment, the purchaser wrote asking for information. He received a reply dated September 7, inclosing a bill of lading for the motor, which had been shipped from New York on July 9, two months previously. The bill of lading was not a through one, but that of a forwarding agency. On September 24, the motor still not having arrived, the buyer wrote again and received a reply expressing surprise and stating that the matter was being taken up with the forwarding agents. The name of the buyer was wrongly spelled in this letter, as well as in the invoice, which was dated July 14, 1906. The invoice specified one No. 5 motor, with patent wheel, including freight and charges, \$133.98, less allowance of \$3.98.

A CONTINUATION OF ANNOYANCES.

The Liverpool branch of the forwarding agency wrote October 11, 1906, that the goods were discharged on July 26, but through no fault of theirs were shut out of the steamer loading, but were sent by next steamer and bill of lading posted to ship's agents on August 13, 1906. One might ask, Why not to shipper direct? seeing that the goods were paid for in advance. The name of the buyer was so spelled on the bill of lading as to be unrecognizable, and although the buyer had sent to all the local steamship agencies, he was informed that there was no shipment addressed to him. The bill of lading remained at the steamship agent's until traced at the end of November. The goods were cleared on November 21, old style (December 4, 1906), according to customs receipt for duty, and the buyer had to pay \$5 for accumulated storage at the custom-house. When the package was opened

it was found to contain a No. 1 motor with ordinary wheel. At the request of the buyer, an officer of the consulate-general identified the machine by its shop number as not being that specified in the invoice, and a letter to this effect was given to the buyer to assist him in proving an error to the manufacturer.

The buyer wrote to the makers suggesting several methods of straightening the matter; that he be reimbursed the storage paid; that his order be executed again, and that he either be made an allowance or hold the No. 1 motor at their disposal. The makers replied admitting that their forwarding department had made a mistake and that a No. 5 motor with patent wheel would be shipped at once. The buyer expressed his satisfaction at the conclusion of his troubles, notwithstanding having lost his season and the two prospective orders which had been placed elsewhere (not in America), and having been made the laughing stock of his friends. His elation was of short duration. Another letter received from the makers informed him that they had traced the error; that his shipment had been sent to Norway and that he had received the motor intended for that country, and that the simplest way would be for these two customers to exchange shipments! I will not enter into the merits of this extraordinary proposal. Manufacturers in the United States should know that where a trade is in its infancy, as is the trade in motors and motor boats in Turkey, such an incident creates prejudice and retards the prospects of business for several years, and this when competitors are trying to outdo each other in offering inducements and facilities.

WARNING TO EXPORTERS.

SHARPERS IN TURKEY—TRICKS TO OBTAIN GOODS.

Vice-Consul-General Smith-Lyte also furnishes a translation of a report made by the French Chamber of Commerce touching on a new method of operations of some sharpers established in Turkey, who exist at the expense of the manufacturers and merchants, of Europe. Their method of procedure is as follows:

They commence by asking for prices and terms of certain articles. The firms thus addressed reply without making inquiries about the standing of their new correspondents, which would be the most practical thing to do. When an unknown merchant writes to you, immediately procure information in regard to his standing. Do not wait until he has given you an order before doing this, otherwise you will delay shipment of his order unnecessarily, awaiting this rating, should it be favorable.

As soon as the manufacturer's reply reaches the sharper, he immediately gives an order of a certain importance without discussing prices or attempting to obtain an extra discount. This liberality, in an epoch when competition is so keen, ought certainly to give the firm chosen as a victim cause for reflection. But the latter, on the contrary, happy to find so easy a purchaser, does not show the least anxiety. To cover the amount of the invoice—for a first transaction one always pays cash—the swindler sends a draft or a check generally on London, bearing several signatures, including generally one of a bank (quasi), a document of presumably first-class value.

The shipment is made immediately. No sooner does the merchandise reach Constantinople than it is realized upon and the trick is played. It is unnecessary to explain that the draft or check and all signatures are fictitious. The seller generally finds this out when too late. Even when he can stop the delivery of the merchandise he always suffers a very considerable loss, because at Constantinople a parcel not especially ordered can not be sold excepting with an important reduction of price, even if it consists of gold in ingots.

ADOPTION OF SIMILAR NAMES.

In order that these thefts should succeed, it is necessary to assume a stylish sounding name. This is not difficult. As a rule these swindlers generously borrow the name of a well-known and respected firm. For example, one of these individuals wishes to operate in Egypt. He makes inquiries and learns that a big firm does important business in the land of the Pharaohs. He therefore adopts an almost identical name to bring about confusion. This trick, in itself so simple, rarely fails to succeed.

As these operations are of a limited duration, these ingenious combinations necessarily have no fixed address. In suppressing their operations for a time they leave no traces. The swindler simply hires a postoffice box and puts on his letter heading, well-gotten up, British (or another) "post-office box No. —." Letters and telegrams go to this box, which he collects every day, and when he finds that the game is about up, this knight of industry disappears, after having realized a good sum.

As to the remedy, inquiries should be made on the receipt of the first letter. And above all make inquiries through reliable sources, for the thief who intends to rob you of \$1,000 or more does not hesitate to sacrifice \$5 to each of his references in order to obtain favorable reports. Therefore be certain of your information. From this point of view certain inquiry agents of Europe exhibit guilty carelessness. They expect information above all cheaply, without estimating the worth of those who obtain it, and, further, the information is wanted by return mail, which does not allow the time for a serious inquiry. This is inviting disaster both ways.

On the other hand, the postmasters should not hire a box to an unknown person without obtaining references and being certain of his identity. In not taking these precautions they assume responsibility, because they deliver registered mail to individuals bearing false names. They ought further to refuse to hire post-office boxes to an individual having adopted the style of a firm of a nature to cause confusion with a respectable firm of the same name, for in so doing, they give him a postal domicile, which facilitates his rogueries.

ENGLAND.

CARDIFF AS A DISTRIBUTING POINT FOR AMERICAN PRODUCTS.

Consul Daniel W. Williams writes as follows concerning the advantages possessed by Cardiff as a distributing point for the products of the United States:

There is no tobacco or cotton imported directly into Wales, and firms entering the market usually locate their headquarters at Lon-

don, Manchester, Glasgow, or some other great center. Cardiff has a nest of docks with all modern improvements, especially equipped for handling imports, and American business men would find it to their interest to assist in the establishment of a line of steamers to Cardiff, and there are some prospects that one will be established. This is feasible for the reason that practically all tramp steamers visiting those ports come to Cardiff to bunker for the voyage. The voyage to Cardiff is shorter by a day or more than to any other port in the Kingdom, and it has no superior as a distributing point on account of its railway facilities. It is already importing great quantities of food products from Australia, New Zealand, Argentina, and other countries, and the voyage here from the southern ports of the United States should enable American products to undersell all other supplies, especially those from the Indian Ocean and South America.

SPAIN.

COMPLAINT IS MADE BY AN IMPORTER OF AMERICAN GOODS.

Consul-General B. H. Ridgely is in receipt of the following communication from a leading Barcelona importer of machinery and machine tools from the United States, which he transmits for any value it may have to American shippers:

What constitutes one of the greatest drawbacks on the export trade of the United States is the intolerable abuse on the part of the shipping agents, whose charges generally amount to as much and often more than the whole freight on the shipment. Merchants like myself, who collect goods from various sources for shipment on one bill of lading, are charged \$1 for cartage on all lots weighing less than 100 pounds. As many of the packages often weigh only 6, 10, or 15 pounds each, it happens that the cartage is as much as the value of the goods.

Shipping agents send their carts to the different stations to receive consignments, so that each cart gets a full load, say from 30 to 50 packages, and sometimes more, which means a charge of from \$30 to \$50 for one cartload. Is this fair?

American manufacturers should take up this matter, as they are as much interested in it as the consignee of the goods on this side. My object in calling your attention to this unfair practice on the part of shipping agents in New York and other American ports is that you might allude to it in one of your reports so as to bring it under the notice of American manufacturers, who might take action in the matter with a view of checking it.

CANADA.

PROPOSED NEW SHIPPING FORM.

Consul-General Church Howe writes from Montreal that the railway commission of Canada has recently sent to the business and mercantile institutions of the country a draft of a new form of the "general terms and conditions of carriage," concerning which he says:

These institutions are now at work considering and discussing this draft in order that the interests of shippers may be fully protected. It is claimed that the draft, as at present worded, is very much in favor of the railroads or carriers, and it is therefore probable that it may undergo some change before being passed by the commission. Hitherto the civil code has governed all conditions of carriage in Canada in spite of the bills of lading, which were

never entirely upheld by the courts. It is the intention that hereafter the terms and conditions of the bill of lading shall control [A full text of the proposed bill of lading can be inspected at the Bureau of Manufactures.]

FRANCE.

IMPORTANCE OF CLASSIFYING GOODS.

The British Chamber of Commerce, at Paris, calls the attention of British shippers to the importance of accurately classifying their goods for the French customs, and the same caution would apply to American shippers. The customs authorities of France, it appears, do not rectify errors of this kind; they simply impose fines. Nor is it enough for the exporter to study the French tariff, since that "bristles with exceptions," and it is necessary also to pore over the explanatory notes of the customs administration and the decisions of the consultative committee, which are contained "in several large volumes." Even if the exporter be in possession of these tomes, it is stated, "they require a considerable amount of practice to understand their involved and intricate explanations."

CHINA.

A SHIPMENT OF STAINED GLASS IS BADLY BROKEN.

Consul Samuel L. Gracey, of Fuchau, China, reports the following case of poor American packing:

The common complaint of bad packing of American goods has found another illustration in a shipment of stained glass to be used in a memorial church building in this city. There were 222 separate pieces of stained cathedral glass, leaded, and some pieces, framed in iron, in rectangular form, circular and arch shaped. Out of the entire lot only 16 pieces were free from damage and these were of the smallest size. The larger pieces were all shattered or cracked so that they could not be used. The boxes in which they were placed were strong enough to withstand the roughest handling. The damage was evidently from bad packing, as in most such cases. The different pieces were laid in loosely, piece upon piece, with a few shreds of fine hay between, and the whole mass surrounded by thin layer of hay, which was so loose when the boxes were opened here as to allow of six inches of play between the edge of the glass and the box, and the glass could be heard to move and grind every time the boxes were turned over before opening. When packed the hay probably filled the space between the glass and the box, but the movement of the boxes had ground the hay into small pieces, and this moved from place to place whenever the box was turned over. There was no attempt to secure the separate pieces from movement in the boxes.

As the church in which they were to be used was nearing completion and not enough of undamaged glass could be found for even one window, a fresh order had to be sent to the United States, and a delay of five or six months must necessarily ensue before the building can be dedicated and used.

AEROSTATION.

SCHOOLS OF BALLOONING.

GERMANY.

THE ART NOW TAUGHT AT CHEMNITZ.

In Monthly Consular and Trade Reports for March, 1907, a brief account was given by Consul Thomas H. Norton of a proposed training school at Chemnitz for aeronauts and constructors of air ships. At the request of parties in the United States interested in aerostation the Department of Commerce and Labor took up the matter, and in compliance with instructions from the Department of State Consul Norton prepared the detailed report, which follows:

All arrangements have now been perfected for the opening of the new school on May 1, 1907. The authorities of Chemnitz have given their official approval of the institution and of its curriculum of studies. The director, Herr Paul Spiegel, is a man of exceptional ability and of broad experience in every phase of balloon construction and management. He has made over 600 ascents. He has done much by public lectures and otherwise to awaken interest in aerial navigation in various parts of Germany, but especially in Chemnitz, where he is well known as a textile manufacturer. Recently he has enlarged his business so as to include the regular manufacture of balloons.

This city is unquestionably most admirably adapted for the location of the proposed school, as it is a leading center for the manufacture of engines, motors, etc. Its importance as a textile center comes likewise into consideration. In industrial circles it is confidently expected that with the aid of the new institution and as a result of the widespread interest in aeronautics already existing in this city, Chemnitz may be easily made the chief place in Germany for the manufacture of air ships, both of the balloon and the aeroplane type.

PROSPECTUS OF THE SCHOOL.

The director informs me that up to the present date (March 19) he has received eight applications of prospective students. With one exception all are from other countries than Germany, Austria contributing the chief contingent. The following is a translation of the prospectus of the training school:

On May 1, 1907, an institute will be opened at Chemnitz for theoretical and practical training in the construction and management of air ships. Young men at least 16 years of age will have for the first time in Germany the opportunity to master all features of aeronautics. Rapid progress has been made during the past few years in perfecting the means for aerial locomotion. Aeronautics has rendered admirable service to science, military operations, and sport. At an early date it will certainly reach a high stage of development and

create a prominent branch of industry. For this reason it is important to train at once such young men as have a special inclination for this new branch, so that they may gain a sufficient capital of theoretical knowledge and practical experience to meet the forthcoming demands both in the construction and in the management of aerial craft.

An air ship offers to its passengers delights unsurpassed by any other method of travel and places at the service of the lover of nature the grandest experiences that life on our planet affords.

The director of the institute has been an active aeronaut for the past twenty-six years. As the result of many hundred balloon ascents and by long experience in the construction of all forms of balloons he has gained that complete mastery of the subject requisite for successful instruction.

A valuable opportunity is offered young men who purpose later to enter the aeronautic corps of the army.

In view of the exceptional expense attendant upon such a course of instruction, more particularly the cost of the frequent inflation of balloons, the tuition charge for a year's course has been fixed at 600 marks (\$149), the same to be paid in monthly installments and in advance.

The course begins on May 1 and terminates on April 30.

An examination is held at the close and certificates of proficiency are granted.

CURRICULUM.

Division I.—(1) Calculation of volumes; (2) the cutting of the materials of a balloon; (3) preparation of impermeable fabrics; (4) construction of nets; (5) safety valves; (6) lectures on the theory of aerial navigation.

Division II.—(1) Inflation of balloons; (2) ascent of passengers; (3) physical instruments employed; (4) meteorological observations; (5) independent management of a balloon; (6) lectures on the problems of aerial navigation, dirigible balloons, aeroplanes, and motors.

INSTRUCTION LARGELY CONFINED TO BALLOONS.

As is evident from the above schedule, study and practical training will be confined almost exclusively to the field of balloon construction and navigation.

In view of the rapid development in the construction of aeroplanes it is a question whether the nonrigible balloon will be in any extended use ten or twenty years hence. However that may be, there is no doubt that the time is ripe for the training of a class of men familiar with the problems of aerial navigation, accustomed to traverse the air with boldness and confidence, and meet promptly and effectively the emergencies and accidents which are incident to practical aeronautics. For the training of such a class of persons, few men are probably as well adapted as the director of the new school, who seems to combine the requisite extended experience with a degree of mingled courage and prudence, quick adaptation to emergencies, practical inventive ability, and, above all, enthusiasm and unwavering confidence in the early and complete conquest of the air.

FRANCE.

INSTRUCTION AND PRACTICE IN AERONAUTICS.

Consul-General Frank H. Mason, of Paris, furnishes the following report on the progress being made in France in the training of aeronauts and construction of balloons:

There is in France, strictly speaking, no school for the training of aeronauts and constructors of air ships in which a definite and prescribed course of study or lectures is pursued. Such instruction

and practice in aerostation as are offered here are provided by clubs and by the Government in connection with the military service. There are in Paris four rather important aeronautical societies or ballooning clubs, and five similar organizations elsewhere in France. These clubs were created for the promotion and practice of ballooning as a sport as well as for scientific study and experiment and in general for the encouragement of all that pertains to aerostation.

PRACTICAL TRAINING.

In some of these young men are given practical training, taught the theory of construction and use of balloons, and instructed practically concerning balloon materials and parts, such as the net, anchor, basket, the guide rope, valves, the tying of ropes, knots, etc., the preparation of the balloon for an ascension, and the care and return of the material after descending. Under certain circumstances these pupils—who are always members of the club—may take part in the ascensions, learn how to handle the balloon in the air, and descend under different conditions of daylight and weather. If they acquire a certain efficiency in all this and pass a prescribed examination, they are permitted, when drawn for military service, to enter the Bataillon d'Aerostiers, or balloon corps of the army. This battalion is established in what is known as the "Menagerie," the old zoological garden formerly belonging to the palace and park at Versailles and located between that city and the military school at St. Cyr. Formerly these corps, Bataillons d'Aerostiers, were distributed among several points in the provinces, but since 1870 the Government has concentrated them at the "Menagerie," and they form part of the regiment of engineers garrisoned at Versailles.

The post is under the control of a commandant, and the men are taught and practice the handling and care of balloons, of which there are in use several of moderate size, none with a capacity exceeding 900 cubic meters. Besides the balloons, the apparatus, and material necessary for inflating them, the equipment includes a plant for making hydrogen gas, which was formerly exclusively used for inflation, but more recently illuminating gas, on account of its more moderate cost, has been generally employed, especially for free ascensions. Most of the ascensions made there are with captive balloons.

PREPARATIONS FOR WAR.

The men who enter this branch of the service are trained at the annual maneuvers for active duty in case of war. Their teaching is practical, and includes all that pertains to preparing, loading, unloading, inflating, deflating, packing up, transporting, camping an inflated balloon in bad weather, etc., but they make no ascensions. This is the exclusive duty of officers. Their service lasts ordinarily two years, when they are discharged, subject for call to duty in the military balloon corps in case of war. The main incentive to service at the "Menagerie" is that it offers a less arduous form of duty than ordinary service in the ranks, and moreover keeps the young recruit within convenient distance of Paris; but many of the young men have no special gift for the management of a balloon, and opinion among experts is somewhat divided as to whether most of them learn much that would really be available in the event of actual war.

The second and far more important institution of this kind in France is known as the "Etablissement Central du Matériel de l'Aerostation Militaire," at Chalais-Meudon, about midway between Paris and Versailles. It has been in existence nearly a hundred years, and is divided into two general departments, as follows:

I. The Arsenal, at present under the command of Commandant Bouttiaux, at which are manufactured balloons and every form of balloon material and equipment for use of the aeronautic service of the French army.

II. The Department of Tests and Experiments, under command of Lieutenant-Colonel Bertrand, where new inventions are developed and tests made with gas and every form of material and appliance which pertains to military aeronautics.

GOVERNMENT STATIONS.

The institution is in fact a combined arsenal and experiment station, but it is in no proper sense a school, since it has no definite course of instruction, no text-books or specified course of lectures. It is there that the official experiments in aerostation, tests of new materials and original features in construction are made by military experts. It was there that Colonel Renard twenty-three years ago built and experimented with "La France," the first dirigible balloon. These two institutions, the "Menagerie" training camp near St. Cyr, and the arsenal at Chalais, are the two principal government stations for balloon materials in the neighborhood of Paris. There are, besides, several minor depots of such material at military posts near the frontiers, where it would be promptly available in case of war. It is, moreover, known that two of the French army corps are provided with large dirigible balloons of the Lebaudy type, built for the purpose by the Lebaudy Brothers, who also trained at their works the first soldiers who were instructed in inflating and navigating them.

Paris is the central mart of balloon construction in Europe. The leading builders are Maurice Mallet, with ateliers at Puteaux, who made most of the balloons which took part in the international race of 1906, and supplied two balloons to the United States Government during the Spanish-American war; E. Surcouf, at Billancourt, who built the first Lebaudy air ship; H. Lachambre, who is the constructor of the several air ships of Santos-Dumont, and Louis Godard, constructor of the Wellman air ship which will endeavor to reach the North Pole. At present the preparation of material for the Wellman Arctic expedition is in charge of an American engineer, Mr. Melvin Vaniman, of Indiana.

BALLOONING CLUBS IN PARIS.

TWO ORGANIZATIONS AND THEIR AIMS AND OBJECTS.

While there is in France no school of aeronautics in which a definite, prescribed course of studies and lectures on ballooning and airship construction is pursued, there are several clubs which give to their members certain facilities for the study and practice of amateur aeronautics, and that these facilities are more or less utilized by young men who seek to gain admission to the balloon corps of the army during their period of enforced military service. In view of the excep-

tional interest which now attaches to the practice of aeronautics in the United States, the following account of two of these club organizations in Paris is submitted by Consul-General Mason as a supplement to the previous report:

The first is entitled the "Aeronautic Sport Club of France." Its list of honorary presidents and membres d'honneur includes several well-known names, but the rank and file of the club are working men, mostly mechanics and small tradesmen, who follow ballooning as a sport and for the certificate of competence which, when they are drawn for military service, will secure to them a chance of service in the Sapeurs Aérostiers, or balloon corps of the army.

OBJECTS OF THE SOCIETY.

The purposes of the society are stated in its constitution to be:

The theoretical and practical study of various modes of aerial locomotion and the sciences which pertain thereto; to make the greatest practicable number of ascensions and experiments in such manner as to popularize most effectively ballooning as a sport; to facilitate, for young men who have not yet rendered their military service, admission to the balloon corps, and to give certificates of aptitude which will enable its members to reach the grade of corporal after four months of service; to promote the breeding and training of carrier pigeons; to cultivate a fraternal spirit between all members of the society.

The honorary members are entitled to participate in all fêtes, reunions, and conferences of the club, but only the perpetual and the active members, who pay an admission fee of \$1 and annual dues of \$7, may take part in ascensions and the real work of instruction and practice in aeronautics.

As the resources of the club are limited and its place of meeting unsuitable for large assemblies, permission is obtained to occupy on certain specified evenings the class room of one of the municipal school buildings, which is warmed and lighted at municipal expense. Meetings for the purpose of instruction are held twice each month, from the end of September until the middle of May, when the open-air season of ascensions and outdoor exercises begins and continues throughout the summer.

COURSES OF INSTRUCTION.

The semimonthly meetings during the autumn, winter, and early spring are devoted to informal readings, demonstrations, and explanations by the officers and older members of the club, and include substantially the following subjects:

Study of maps and topography; practical exercises with a school balloon maneuvered in a net; the atmosphere and aerial currents; scientific observations to be made from a balloon; the instruments employed—thermometer, hygrometer, statoscope, and compass; the journal or log of an ascension, with diagrams; visit of the class to the ateliers of Mr. G. Gass, constructor of aeronautical apparatus; functions of the "soupape" (valve), different systems of appendix; the comparative lifting power of different gases; photography and choice of photographic apparatus for aeronautical purposes; practical course of instruction in tying knots in cordage, in starting balloons for free ascensions, and securing and packing material after descent, and explanations and discussions on the dirigibility of balloons. These studies and exercises are followed at the beginning of

May by an examination of the members of the class by a commission, which gives to each a certificate or rating as to general intelligence and knowledge of practical aeronautics.

The months of June, July, and August form the season of active outdoor work, including numerous ascensions in balloons belonging to the club. Each active member desiring to participate in an ascension must register his application and pay to the treasurer, eight days in advance, a fee ranging from 10 to 20 francs (\$1.93 to \$3.86), the exact amount being fixed each year by the council of administration according to the fiscal condition of the society.

Each ascension is in charge of a pilot or experienced member of the club, which assumes responsibility for the cost of returning the balloon to Paris from all distances not exceeding 50 kilometers (about 30 miles). Should the flight exceed that distance the members who have made the ascension are required to pay jointly the expenses of return for the distance exceeding the prescribed 50 kilometers.

THE AERONAUTIC ACADEMY.

The second organization is entitled the Academie Aeronautique de France, and has its headquarters at No. 4 Rue des Goncourts, Paris. Its members belong to rather the well-to-do, educated class of French citizens, and the purposes of the society are declared in its constitution to be:

The study of aerostation, aerial navigation, and of all sciences which are directly related thereto. The meetings and conferences of the society are arranged for the purposes of organizing and conducting ascensions, in which its members may take part; conducting technical experiments and ascensions of a purely scientific character; to educate trained aeronauts, who shall be tested, fitted by knowledge of theory and by practical experience to render competent service in time of war; to instruct young men in all that may be requisite to entitle them to admission in the balloon corps of the army.

The Academie Aeronautique comprises several classes of members—honorary, perpetual, active, and corresponding. Perpetual members pay on admission a contribution of \$20, but are exempt from all other financial obligations. Active members are subject to annual dues of 2 francs (40 cents), while corresponding members, who are generally residents of other French cities, pay as annual dues 12 francs (\$2.31), for which they enjoy all the privileges of the club when in Paris. Members are exempt from all dues and obligations during their period of military service in the balloon corps.

The work of the society is under charge of commissions or committees made up of its most advanced and experienced members. The principal commissions are: (1) The committee of studies, including five members, which has control of all studies and instruction; (2) the committee of admission considers and decides on applications for membership, which are carefully scrutinized, as it is the purpose of the association to admit only men of good character and antecedents, well educated, and who are seriously interested in aeronautics.

PARTICIPATION IN ASCENSIONS.

Members of the club are forbidden to assist in any ascension which has the character of a public exhibition, at fairs and other places to which an admission fee is charged. Aside from the maintenance of its club premises and facilities for study, the resources of the society

are expended wholly in providing ascensions for its members, the number of which during any given year is governed by the condition of the treasury.

Each ascension is in charge of a pilot designated by the president and chosen from among the most experienced and competent members of the association. The privilege of making ascensions is limited among active members to those who have been at least six months members of the club, each of whom must pay to the treasurer eight days before the date of ascension 20 francs as his contribution to the expenses of inflation and return of the material after descent. Membership in the club is restricted to Frenchmen of adult age in possession of all rights and privileges of citizenship.

While there is some difference of opinion among expert aeronauts, both military and civil, as to the exact value of the instruction furnished by these clubs in preparing young men for practical service in the balloon corps of the army, there can be no doubt whatever of their important influence in popularizing ballooning as a sport and in cultivating an intelligent interest in all the scientific results of aerial navigation.

MOTOR BOATS.

AMERICANS NOT TAKING PART IN THE NORWAY EXHIBITION.

Consul F. S. S. Johnson notes with regret that American motor-boat manufacturers are not taking advantage of the Bergen Motor Exposition to be held in that Norwegian city during the month of July. He writes:

Only a few applications from the United States have been filed with the committee, while the number from European countries have been so many that more buildings and a larger space for exhibition are now contemplated by the committee. I requested the collector of customs to state if exhibits would be admitted free of duty. He informed me that the exposition committee had applied to the Government for the free admission of goods intended for exhibition, which he had indorsed, and which application he believed would be granted. I therefore urge all manufacturers of motor boats in the United States to participate in this exposition, as it will in all probability open up a new market for these goods.

ALCOHOLIC ARTICLES.

WORLD TRADE CONDITIONS.

BEVERAGE STATISTICS.

CONSUMPTION AND PRODUCTION OF THE LEADING COUNTRIES.

Consul-General R. J. Wynne, of London, submits the following analysis taken from a London newspaper of the annual report of the chancellor of the exchequer, which gives some interesting figures in connection with the revenues of the United Kingdom and other nations as to production and consumption of alcoholic beverages:

In the year 1905 the total amount of beer drunk in the United Kingdom was equal to an average of 27.7 gallons for every man, woman, and child in the population, and though this was 3 gallons less than in 1901, only four years earlier, it still maintained a margin of 1.5 gallons over the German average. The United Kingdom exhibits only a moderate capacity compared with Belgium, which consumed 49 gallons per head of the population in 1905, and thereby easily established a record as being the greatest beer-drinking nation in the world. But constituent States of Germany consume still more. Bavaria drank 51.7 gallons per head of her population in 1905; in 1899 it consumed just short of 3 gallons a head more.

STATISTICS OF CONSUMPTION.

The position of the principal nations in regard to beer drinking, as shown in the official returns, is indicated below, the consumption per capita being given in each case:

Countries.	1901.	1902.	1903.	1904.	1905.
	<i>Gallons.</i>	<i>Gallons.</i>	<i>Gallons.</i>	<i>Gallons.</i>	<i>Gallons.</i>
Belgium.....	48.2	47.1	47.7	48.2	48.8
United Kingdom.....	30.8	30.3	29.7	28.8	27.7
Germany.....	27.3	25.5	25.7	25.7	26.3
Denmark.....	21.1	20.8	20.2	20.5	20.5
United States.....	14.6	15.0	15.2	15.4	16.8
Austria.....	15.8	15.4	14.7	15.2	14.3
France.....	8.1	8.1	7.7	8.1	7.5

Germany is the leading producer of beer, with 1,601,000,000 gallons in 1905. The United Kingdom, which brewed 1,219,000,000 gallons, has lately resigned the second place to the United States, which manufactured 1,413,000,000 gallons. The production of both Germany and the United States is increasing, while that of the United Kingdom has steadily diminished from 1,301,000,000 gallons in 1901. The United Kingdom is far down the scale as a drinker of either spirits or wines. In fact, in regard to these it is behind some of its own colonies, which care little for beer. Both Australia and Canada, which take only 11.3 and 5.4 gallons of beer per head, respectively, drink more spirits than the United Kingdom, proportionately to the

population. The Danes are the greatest consumers of spirits, as the following table shows, the figures being calculated per head of the population:

Countries.	1901.	1904.	1905.	Countries.	1901.	1904.	1905.
	<i>Gallons.</i>	<i>Gallons.</i>	<i>Gallons.</i>		<i>Gallons.</i>	<i>Gallons.</i>	<i>Gallons.</i>
Denmark	2.60	2.11	2.42	United States.....	1.13	1.21	1.26
Austria	2.20	1.98	1.99	Russia.....	.92	.95	.....
Hungary.....	1.76	1.98	1.58	Belgium.....	1.89	1.14	1.10
Germany.....	1.63	1.54	1.43	Australia.....	.97	.87	.96
Holland.....	1.56	1.50	1.43	Canada.....	.76	.95	.94
Sweden.....	1.65	1.34	1.86	United Kingdom..	1.09	.95	.91
France.....	1.33	1.50	1.37				

WINE STATISTICS.

The amount of wine sold in the United Kingdom is almost a negligible quantity in comparison with other countries. The average Frenchman, according to the statistics, drinks almost one hundred times as much wine as the average Englishman, and France, although the greatest wine-producing country in the world, actually imports more wine than it exports. A comparison of the yearly consumption of wine per head in the principal countries is appended. The figures are in this case calculated over quinquennial periods:

Country.	1891-1895.	1896-1900.	1901-1905.	Country.	1891-1895.	1896-1900.	1901-1905.
	<i>Gallons.</i>	<i>Gallons.</i>	<i>Gallons.</i>		<i>Gallons.</i>	<i>Gallons.</i>	<i>Gallons.</i>
France.....	23.0	28.6	30.8	Australia.....	1.09	1.12	1.30
Italy.....	20.6	20.0	25.1	Belgium.....	.86	.94	1.02
Spain.....	21.1	16.4	18.5	United States.....	.80	.52	.45
Austria-Hungary..	2.9	3.2	3.9	Holland.....	.43	.40	.57
Germany.....	1.19	1.38	1.45	United Kingdom..	.37	.40	.52

Both in the United Kingdom and the United States alcoholic beverages contribute more than a fourth—about 28 per cent—of the total receipts into the Treasury. The total amount of the taxes derived from wine, beer, and spirits in the United States during the period 1901-1905 averaged over \$194,660,000 annually, as compared with \$175,194,000 so raised in the United Kingdom, and \$165,461,000 in Russia. France comes next, raising only \$82,730,500 per annum, closely followed by Germany with \$65,697,750.

GERMANY.

CHAMPAGNE PRODUCTION AND EXPORT.

Consul T. H. Norton, of Chemnitz, replying to a California inquiry requesting information on wine and champagne manufacture in Germany, writes as follows:

The leading German champagne makers follow the recognized French methods of manufacture. They use for the purpose, as a rule, the Lorraine wines, also mixtures of Riesling wine, with the wine from the blue Burgundy grapes. In a factory in Hesse, where 6,000 bottles are produced daily, the so-called Reihlen fermentation process is employed. In this method no yeast is used, and the subsequent opening of bottles to remove the yeast is thereby avoided. Germany exports over half the quantity of champagne which she imports.

Thus, during the month of February, 1907, she imported 120,000 and exported 70,000 bottles. The average value of German champagne is notably less than that of the French.

SPAIN.

CONDITIONS IN THE WINE TRADE.

Consul-General B. H. Ridgely, writing from Barcelona, says that Spain has made great sacrifices for the sake of her vineyards, and the loss of many of her forest lands and resultant droughts may be traced to the manner in which extensive tracts of country were laid bare for the planting of vines. He continues:

Doubtless at the time that the phylloxera made such ravages among the French vineyards and obliged France to look for her supplies south of the Pyrenees the Spanish wine growers secured a rich return, but it was not long before the Spanish vineyards were also attacked, and while the French growers lost little time in re-planting, the Spaniards, being as a rule too poor to afford the necessary heavy expense, were obliged to abandon their holdings.

Within recent years some of the wealthier landowners have endeavored to create special brands in imitation of French clarets and light, white table wines, and some have already met with considerable success. Unfortunately, however, the majority, possibly from necessity, have been content to adhere to their primitive methods, and produce, so to speak, the mere raw material either for home consumption or for others to elaborate, and for which they have been obliged to accept whatever price the high protective tariffs of other countries have allowed. Reviewing the wine trade during the past year, we find that prices steadily declined until the month of July, this being due in the first place to the abundant vintage of 1905 in the southeast section of Spain and the excellent outlook for 1906, not only throughout Spain, but also in other wine-growing countries, such as France, Italy, and Portugal, and in the second place because of the termination of the commercial treaties with Germany and Switzerland.

FUTURE OF WINE TRADE.

The extensive manufacture in England of wine from raisins also in some measure affected the sale of Spanish wines in Great Britain. From August onward the lack of rain began to injure the grapes and in Spain prices began to recover, assisted by the commercial *modus vivendi* with Switzerland. At the same time the domestic demand improved, especially in the wheat-growing provinces, where the splendid crops had brought prosperity to the inhabitants.

With the exception of sherry wines, the trade with the United States is unimportant. The recent commercial treaty may, of course, help the sale of Spanish wines in America, but leading growers and shippers do not anticipate any very great results from it. Altogether the present position of the wine trade in Spain is not very favorable. Many years must elapse before this country can hope to secure a firm hold on foreign markets for her better wines, and not until the wine-growing districts of Rioja, Aragon, and Valencia are able to produce the same quantities they formerly did.

It is estimated that with the present rate of production the proposed abolition of octroi dues, should it ever be carried out, would so increase the home consumption as to leave very little common wine for export. The heavy cost of transportation by rail, enhancing as it does by 30 to 50 per cent the cost of the wine sent from the Valdepeñas and central districts of Spain, makes it all but impossible to market those wines abroad.

The shipments of common wine show a falling off, more noticeable, however, in the declared value than in the actual quantity. The 1906 figures were 1,293,909 hectoliters (hectoliter=26.417 gallons), valued at \$9,063,626, against 1,919,020 hectoliters, valued at \$15,511,860 in 1905. The exports of sherry wines, however, increased from 18,475 hectoliters in 1905 to 45,611 hectoliters in 1906, valued at \$606,992 and \$1,169,407 for the two years, respectively.

SHERRY WINE AT PORT ST. MARY.

Consular Agent G. M. Daniel, at Port St. Mary, reports as follows on the wine trade in that part of Spain:

The exports to the United States in 1906 were composed entirely of sherry wine, which amounted to 2,468 butts, an increase of 240 butts over 1905. The total exports of sherry from Port St. Mary last year to all parts of the world were 6,708 butts. As to sherry vintage for 1906, the crop fell below the average. As to the quality, this can not yet be fully ascertained, but the opinion is that the must will develop into fine grade wines.

ARGOLS AND WINE LEES.

EXPORTS LARGELY CONTROLLED BY A TRUST.

Consul-General Robert P. Skinner, of Marseille, in reply to an inquiry from an American manufacturer, sends the following information concerning exports of argols and wine lees from France:

While almost innumerable producers of these articles are to be found in the wine-growing regions, there are very few firms so placed as to be able to export in wholesale quantities. The argols are collected from the sides of wine casks, and the lees, much less rich in tartar, are collected from the bottoms. Local dealers purchase this merchandise from the individual wine producers and dispose of their stock to the large concerns, some of which have hitherto exported to the United States, although at the present time American exportations are almost exclusively in the hands of the important Société pour le Commerce de Tartres, of Montpellier, Hérault.

There are two principal importers of argols and lees in the United States, who formerly purchased in the usual wholesale manner. Early in 1905 these firms created in France the Société pour le Commerce de Tartres, in order to deal directly with the producers. The owners of the large tartar refinery at Agde are also interested in this buying concern, whose dealings are so large that other firms find it advantageous to sell their crude tartar directly to the Montpellier society, which, according to my information, is an organized trust, controlling the market by regulating rather than imposing terms on the producers. The price during the year has varied from 23 to 24 cents per pound on the basis of 100 per cent of bitartrate of potash.

INDEPENDENT SHIPPERS—DEMAND FOR FRENCH ARGOLS.

Considerable quantities of refined cream of tartar, free from calcium tartrate, are manufactured in this part of the country and are sent chiefly to Australia and British markets. I send a list of the best-known firms occupied in its production. In spite of the importance of the operations of the Montpellier company, there are independent shippers of argols, of whom I send a list. [Both lists are filed for reference at the Bureau of Manufactures.]

The reason why French argols are specially sought arises from the fact that they—Burgundy argols in particular—yield a whiter cream of tartar than the raw material from any other country, while at the same time the amount of calcium tartrate which they contain is considerably less than that of Italian and Spanish argols. Prices are fixed according to the yield of the material in bitartrate of potash, this percentage being obtained according to the Goldenberg method, which came into use in 1898, and which has since been adopted in the principal laboratories. The ordinary commercial classifications of the merchandise are: Brown argols, containing about 80 per cent of bitartrate of potash; red argols, containing 70 per cent; and wine lees, containing 30 per cent. The exportations of these French products during recent years appear below:

Year.	Wine lees.	Crude tartar.	Tartar crystals.	Cream of tartar.
	Tons.	Tons.	Tons.	Tons.
1906	950	8,066	46	4,556
1905	1,984	8,254	18	5,111
1904	277	5,167	9	5,773

ITALY.

SMALLER VINTAGE OUTPUT, BUT HIGHER PRICES.

Consul A. H. Michelson makes the following report from Turin on the vintage results last year in Italy:

The wine produced in Italy from the vintage of 1906 was 794,053,100 gallons, and from that of 1905, 773,761,349 gallons. The yields of these two years are the smallest of the last decade and about one-third smaller than that of 1901. Comparing the yield of 1906 with the average yield of the five previous years, 1,008,647,340 gallons, the year just passed shows a decrease of over 200,000,000 gallons. The quality of the yield in 1906 was, however, excellent, and this fact, coupled with its smallness, has resulted in unusually high prices. As these prices are likely to rise still further, it should be remembered that when ordinary table wines approach 40 cents per gallon in Italy adulteration becomes profitable.

The share of Piedmont in the yield of 1906 was 98,176,720 gallons, and in that of 1905, 119,867,540 gallons. The Province has therefore produced in 1906 an unusually small amount of wine in an unusually lean year. Nevertheless, in point of productivity Piedmont ranks second only to the Middle Adriatic Province, and the richest of its four counties produces more wine to the square mile than any other of the 68 counties of Italy save only that of Naples. In point of quality the wine of Piedmont stands, as it has for long stood, the best in Italy.

The outlook for 1907 is not unclouded. The winter has been one of unusual severity, and general uneasiness is felt concerning a possible reduction of the tariff rate on sugar. Cheap sugar means adulterated or even wholly artificial wines.

(Deputy Du Perrier, the head of the parliamentary group guarding the interests of the wine growers of France, declared during the last session that owing to the reduced tariff on sugar from 10,000,000 to 12,000,000 hectoliters (hectoliter=26.4 gallons) of artificial wine are sold yearly in France.)

Rising prices, the inadequate railway service, and the obligation to return, before April, 1907, the barrels loaned by the Government to offset this inadequacy are also troublesome.

The American "food and drugs act of June 30, 1906," has been warmly discussed throughout the Province, and although some confusion regarding its interpretation has been evident, its provisions have received marked approval. Numerous inquiries have been made concerning the paper bottles manufactured by a New York firm. These inquiries have been met with the answer, that the bottles in question are used only for milk. If such bottles could be adapted to the use of wine, Piedmont presents an important market.

PRODUCTION OF VERMUTH.

The manufacture of vermuth, the most ancient and continuously prosperous craft of Turin, has been of recent years menaced by two important dangers. One of these, the imitation of the article, the name of which is inseparable with that of Turin, is each day growing greater. The other, the danger that vermuth might become the object of legislation in foreign countries, or even in Italy, which would declare it a liquor and not a wine, has been greatly lessened during the past year. Had another name, one reflecting in itself a geographical position, been given this product when the making of it was in its infancy, the danger of imitation could not have assumed the proportions which each day become more apparent. As it is, vermuth is being manufactured in increasing quantities in foreign countries. Its manufacture as carried on in Trieste, Austria, is particularly menacing. In Trieste it is produced both in the city and in a free zone established six years ago within the port. The article thus escapes customs duty when destined for Austrian consumption and escapes excise duties when destined for foreign consumption. Of this vermuth manufactured in Trieste the most dangerous mark is that exported to the United States with the words "Vermuth di Torino—Made in Italy" burned upon the cases and bearing a label almost identical to that of one of the best known houses of Turin. It is hoped that the new American act will definitely put a stop to this practice.

The decision in the autumn of 1906 by the Federal court of the State of New York that vermuth is a wine, followed by a decision of the supreme court of Italy, on February 21, 1907, to the same effect, must serve as important precedents when other countries raise the question. The latter decision is the result of an action begun immediately after the passage of a law of July, 1904, governing the preparation and production of wines. The case went from a lower court to the court of appeals, and from thence to Rome. The exports of vermuth from Piedmont to the United States during 1905 amounted

to \$352,877, and in 1906 to \$362,850, and of wines \$24,444 and \$29,505 in these respective years. Crude tartar was likewise exported to America to the value of \$59,176 in 1905, and \$56,776 in 1906.

GREECE.

DENATURED ALCOHOL IS ONLY HALF THE COST OF PETROLEUM.

Consul-General George Horton, of Athens, reports that the most interesting industrial experiment of the past year in Greece has been the formation of the company for the production and exploitation of alcohol manufactured from currants, about which he writes:

This company owed its origin and much of its success to the genius of the late John Pesmazoglou, president of the Bank of Athens. The Hellenic Company of Wines and Spirits has a paid-up capital of 6,000,000 drachmas (drachma = \$0.193). I was formed about six months ago, having obtained a contract with the Privileged Currant Society for the purchase of currants at a fixed price for the manufacture of wines, spirits, and denatured alcohol. It has been in business about four months, during which time it has acquired a clientele of 12,000 persons, and has sold lamps, transformed petroleum into alcohol burners, has lighted shops and streets, has made contracts with several municipalities for lighting, and has furnished power for stationary engines.

The company has at present an average daily output of 3,500 kilos (kilo = 2½ pounds) of denatured alcohol of 95° and 96°, and has great hopes of permanent success for the following reasons:

Denatured alcohol for lighting purposes costs not much more than half the price of petroleum here. The latter costs 1.4 drachmas the liquid oke (1 liquid oke = 0.3513 gallon), while the alcohol can be sold at 0.8 drachma. The company has at present 100,000 tons of currants to work upon, resulting from the retention law, which does not allow the entire crop to be put on the market each year. This same retention adds to the stock on hand 6,000,000 Venetian pounds of dried currants each year. It is not probable, therefore, that the local demand for denatured alcohol will ever outrun the production. It is more likely that Greece will be able to export denatured alcohol in large quantities.

CANADA.

NEW CANADIAN WOOD-ALCOHOL APPARATUS USES ONLY ONE OPERATION.

As the subject of denatured alcohol is now attracting considerable attention in the United States, Consul-General Church Howe, of Montreal, believes it may be of interest to mention that a Toronto company has now in operation, at Cookshire and at Montreal, new types of distilling-rectifying apparatus for the production of wood alcohol, which he thus describes:

This apparatus is an adaptation of the Barbet system, whereby there is produced directly in one continuous operation, instead of the customary three or four redistillations, a 99.5 per cent highly refined wood alcohol, or methyl alcohol, from crude liquor (lime lees) containing probably 65 per cent wood alcohol, while at the same time all

the impurities are separated, and as one of the several by-products an acetone spirit is obtained which contains 40 to 50 per cent acetone and can be used as a source of acetone for denaturing alcohol.

The Cookshire apparatus is stated to produce about 400 gallons of methyl alcohol in 24 hours, while the Montreal apparatus can produce about 2,000 gallons in 24 hours and rectifies the crude alcohol from the various factories belonging to the company at Deseronto, South River, Longford, etc. The apparatus was manufactured in France. So far as known, no such apparatus is in use in the United States.

JAPAN'S TEA TRADE.

NATIVE MERCHANTS DEVELOPING THE EXPORT BUSINESS.

Consul-General H. B. Miller sends from Yokohama a newspaper clipping which treats on Japan's tea trade, and from which the following extract is taken:

The function of exporting Japanese products is being gradually removed from the hands of foreigners in Japan to Japanese direct, especially in respect to the tea trade. It appears that the opening of Shimizu as a special port of export was effected for the purpose of facilitating the direct exportation from that port of tea produced in Shizuoka, which furnishes 70 per cent of the total output in Japan. This plan has proved successful, and 3,930,000 pounds of tea refined in Shizuoka was exported from that port last year.

An inspection fee is imposed by the tea merchants' guild on tea to be exported through Yokohama at the rate of 11 cents per box, but no such fee is required for the exportation from Shimizu. Under these circumstances it is anticipated that of teas hitherto exported from Yokohama at least the Shizuoka tea will eventually cease passing through this port. The future of trade in Yokohama should not be regarded as promising, for the quantity of tea exported from Shimizu last year reached nearly 4,000,000 pounds, against 18,838,000 pounds from Yokohama, which market had commanded the situation for years.

MEDICAL TOPICS.

MALAY OPIUM CURE.

EFFECTIVENESS OF THE NEW REMEDY—REDUCED SALES OF THE DRUG.

Consul-General D. F. Wilber, of Singapore, Straits Settlements, under date of March 12, forwards a report on the newly discovered Malay cure for the opium habit, several references to which have appeared in Consular and Trade Reports causing numerous inquiries from various parts of the United States for further information. Upon request Mr. Wilber furnishes the following particulars:

Through the courtesy of the Selangor Anti-Opium Society of Kuala Lumpur, and the aid of the Rev. W. E. Horley, of that place, I am enabled to send a quantity of the prepared opium-cure plant discovered in the Federated Malay States, which has been used with considerable success of late. The cure has many staunch supporters, while some ridicule the idea that it has any curative properties.

The attention of this consulate was called to the treatment about three months ago; but like all new cures for supposed incurable diseases, it was thought best to give it a chance to prove its merit. It is safe now to say that there is no doubt but that there have been a large number of cures, which the friends of the remedy emphatically claim are permanent, while the skeptics merely say wait and see.

A LOCAL VIEW OF THE CASE.

A very fair statement of the matter is found in the *Malaysia Message*, the January issue, published by the American Methodist Mission in Singapore, which is as follows:

The scientific name of the plant which is credited with effecting such widespread and marvelous cures of the opium habit, is pronounced by Mr. H. N. Ridley, the director of the botanic gardens, Singapore, to be *combretum sundalum*. It is not, as some suppose, the plant known by the Malay name of *tampal* (*tampo*) *bel*. The now renowned plant is a climber of no hitherto known use, and its antioptium properties are stated by some scientific authorities to be mythical. A local doctor is quoted in the daily paper as saying that an infusion of Assam tea would have the same effect. But against this evidence are many such testimonies as that of another member of the medical fraternity, that a man whom he had treated in the most orthodox fashion without success had come to him to say he had been cured by the climber of challenged potency.

From the beginning we have been wary of becoming enthusiastic over the new cure, knowing the possibilities of a hoax in such a sudden and much lauded experiment. We do not attach much importance, however, to the fact that men "who know" pooh-pooch it; the discovery of the cure is too humble, and its administration by lay hands too unpretentious to win glowing medical indorsements until it has made opposition impossible by the uniform success of its use. On the other hand, the tendency to hope and to look for the best in everybody and everything that is a necessary part of a religionist's equipment may betray him into a premature acceptance of a fiction and thereby make him, his religion, and his cure a laughing stock. We therefore say, Wait and see. Time will certainly tell whether the cure is a cure or a nightmare, and we trust even its skeptics would be rejoiced to find themselves mistaken, for that a cure is needed nobody doubts.

In the meantime the new remedy is taking nobody's money away from him: it is filling nobody's pocket with royalty money: it is drawing no tears from the eyes of wives and children of depraved and helpless victims, and if its antioptium properties are, as alleged, wholly mythical, why not adopt it as a "mind cure" so long as it does the work?

ADMINISTERING THE TREATMENT.

The manner of preparing the infusion and the treatment, as furnished by the Selangor Anti-Opium Society, is as follows:

First, boil over a gentle charcoal fire in the proportion of 3 pounds of water to 1 ounce of the prepared drug for about four hours, till half the original water remains. Second, strain the preparation and leave it to cool, and it is ready for use. Third, fill two (brandy) bottles with the preparation; into bottle A put burnt opium to the quantity the patient used to consume in one day. The opium will dissolve at once in a milky color. Fourth, take two table-spoonfuls of the mixture from bottle A whenever the patient craves for opium, shake the bottle before use, and directly after each dose is taken fill the same quantity of the preparation from bottle B into bottle A. No opium is to be put into the medicine after the first bottle. In from ten to fifteen days the patient ought to be cured.

It is claimed that since this treatment has been given in the Federated Malay States the importation of opium into the native States has been reduced from 80 to 50 chests per month. The supporters of the cure claim it is responsible for the decreased importation, while others claim the antiopium movement is the cause in a measure.

A MINISTER'S REVIEW OF THE CURE.

The Malaysia Message of December, 1906, contains an article written by the Rev. W. E. Horley, who has this to say about the discovery of the cure and its effectiveness:

During the last few weeks the Chinese have emphatically proved that they are desirous of breaking off the opium habit. About two months ago the members of the Chinese Young Men's Association, in connection with our Kuala Lumpur Mission Hall, heard the good news that there had been discovered in the jungle of Negri Sembilan the leaf of a creeper which would cure smokers of the opium habit, and they became enthusiastic in getting the new medicine. Some of them had read the Chinese translation of the life of Pastor Hsi, and as they perused the pages of that noble Christian life and read how he opened scores of opium refuges in China and cured thousands of opium smokers with his medicine they (the preachers especially) felt that here was an opportunity to do something themselves.

Upon visiting the Chinese towkay, who had introduced the medicine in Seremban with good effect, I found that the leaf had been discovered in Jelevu by a young man who was an opium smoker. He had been told by a friend to take the leaf of a certain plant growing in the jungle and to boil it and drink the medicine. He did so and found that he could break off his opium habit. He told others about it, and when the Seremban towkay went to Jelevu to collect his house rents he was told of the medicine. He ordered his mining coolies to collect the plant for him, and then introduced it into Seremban. We asked him to let us have some of the leaf, and he sent us twelve sacks at once. The Chinese preachers and young men enthusiastically took up the matter, and the medicine was prepared at the mission hall. The news spread and hundreds per day came, until the mission hall and street outside became blocked with people. The demand was more than the supply, and we had to engage two coolies to help prepare the medicine. Never shall I forget the touching spectacle of these men eagerly asking for help; of children coming asking for the cure for their fathers; of wives for their husbands. Malays and Bengalees, also came; Chinese miners, merchants, scholars, and shopkeepers came in their thousands, some bringing empty whisky and brandy bottles, others "square-face" gin bottles, for we told them that we could supply the medicine free if they would bring their own bottles. Never have I witnessed such a crowd of applicants. We supplied nearly 500 people a day, which would mean 1,000 bottles of the medicine. Other places in the town began to supply the medicine, until 2,000 men per day were supplied with it. Men came by rail from villages 30 and 40 miles away, and in the streets every second man was carrying a bottle. Depots have now been opened in every large town and village by the Selangor Antiopium Society.

MEDICINE EFFECTIVE—DULL TIMES FOR OPIUM DENIS.

I made inquiries of many who were taking it, and they all said, with one accord, "Since taking the medicine we have never touched any opium." One man, who came a second time for the medicine, said that he had been a smoker for twenty-eight years, but that he had broken off the habit and now he had come for a supply of medicine for his wife. He had found it so good himself that he wanted her to take it also. They had together spent on opium \$1.40 a day. I could multiply testimony after testimony if I had the time to do so.

I made inquiries at the opium shops and found that eight retail shops were taking nearly \$1,000 a week less, and that one wholesale shop was taking \$1,390 a day less. From good sources I have learned that there was a decrease in the estimated Government sales of opium from the 16th of October to the 15th of November last of 30 chests. This would mean about \$44,000 decrease in money—certainly a striking proof that the medicine has done good. These are proofs enough that there are not so many smokers as formerly. A landlord came and told me that if this went on he should have to reduce his rents, and quite a number have spoken of giving up their licenses.

Some one has suggested that perhaps the patients would not be able to give up the medicine and that it would take the place of the drug, but I have discovered that such is not the case. Being informed that in a certain shoe shop in Kuala Lumpur there were five employees who had broken off the habit, I went and saw them. I learned that three of them had discontinued the medicine for over a month, after taking it for over two weeks, and that the other two employees had also broken off the opium, though still taking the medicine, as they had begun taking it much later than the others. The towkay of the shop was delighted that his employees had broken off their opium habit and showed me with great satisfaction one of his employees whom he said used to be thin and sickly when he took the drug, but who is now fat and well. I could give hundreds of similar testimonies from men who have stopped both the opium habit and the medicine.

SUCCESS IN MALACCA—CHINESE SUPPORT.

Opium smokers have brought their lamps and pipes to the mission hall and the antiopium society as proof that they have broken off the drug, and Mr. Shellabear writes me as follows from Malacca: "You will be glad to hear that a Cantonese man who got the medicine some time ago from Seremban has given up opium. There was great rejoicing this morning when he took the ax and broke up his opium pipes and cast them into the sea which rolls at the back of his house." Will they stand fast? people naturally ask. Of course that remains to be seen, but whether the cure is permanent or not, one thing stands out before us, that 25,000 applicants have come for the medicine during these last few weeks.

SERUMS AND ANÆSTHETICS.

ENGLAND.

"STOVAINE" AS A SUBSTITUTE FOR CHLOROFORM.

Consul F. W. Mahin, in a report from Nottingham, which appeared in Daily Consular and Trade Reports for December 21, 1906, briefly described a new anæsthetic called "stovaine," which when injected into the spinal column prevented pain, but did not produce unconsciousness. He states that a London publication now gives additional details, as follows:

It produces paralysis of the body below the point of injection and removes all sensation from the limbs, so that it has been found possible to amputate a man's leg while the patient retained consciousness, and could, had he been allowed to do so, have even witnessed the operation. The patient could feel no pain, and after the operation and when sensation returned experienced nothing but the sense of bruising, which is one of the sequels of grave operations. For some time experiments with "stovaine" were confined to hospital cases, but we believe we are correct in saying that over a hundred cases have now been treated in private

practice. The anæsthetic is, of course, of the greatest use in minor operations and in those where, owing to the patient's age or heart weakness, the administration of chloroform would be dangerous. It has been used in several gynecological cases, and there is no evidence that any danger attends its use or that, given proper administration, any prejudicial factors accompany or follow its use. It is, however, a drug of great potency and demands the most skilled administration; so that for a time, at any rate, its application will be restricted to skilled operators. The curious name of the anæsthetic, "stovalne," is due to its discoverer, M. Fourneau. M. Fourneau was anxious to perpetuate his own name in connection with it, but as the anæsthetic was of the nature of cocaine and no compound resembling that could be contrived out of "Fourneau," he translated the name into its English equivalent of "stove" and added the necessary termination.

FRANCE

PRICES FOR DIPHTHERIA ANTITOXIN.

Consul-General F. H. Mason, of Paris, reports that the price at which diphtheria antitoxin and other serums are sold in France by the Pasteur Institute, to apothecaries and to the agents of other Governments who apply directly to the institute for supplies, is 48 cents per flacon, containing 10 cubic centimeters (or 10 grams), comprising 2,500 units. The retail price in Paris is 58 cents per flacon of 10 grams, so that the retail profit is 10 cents per vial.

GERMANY.

SUCCESS OF THE DIPHTHERIA SERUM TREATMENT.

Consul-General A. W. Thackara sends from Berlin the following information on the new treatment for diphtheria, supplementary to the article on this subject furnished by Consul-General Guenther, and published in Daily Consular and Trade Reports for March 16:

The manufacture of serum in Germany is under Government control, in order to prevent adulteration. Since Behring's discovery of the diphtheria serum, and the establishment of this treatment about ten years ago, the production of serum has become a most important branch of industry. The researches on the subject of the power of resistance or immunity of living creatures to the bacilli of disease have been developed into the science of experimental therapeutics, and their most important result is the treatment by serum. In addition to curing a disease already broken out, serum is used for the prevention of disease, and in this direction great success has been obtained in the Fatherland, particularly in the case of diphtheria.

Before any serum for diphtheria can be sold by chemists it must be tested and stamped by the Government official designated for the purpose, the testing being carried out on principles resulting from the researches of Ehrlich and other German scientists, regarding the effects of antitoxic and bactericidals sera on contagious germs and their poisons. The substances used for these tests (so-called test poisons, test sera, etc.) are kept in the testing house under conditions guaranteeing their immutability.

During the years 1892 and 1893, there died in ten States in the German Empire, before a healing serum had been discovered, 113,259 children between the ages of 1 and 15 years from diphtheria. During 1896 and 1897, after the pretty general treatment with diphtheria serum had been introduced, there were registered in the above-mentioned ten German States, only 45,942 deaths from diphtheria among

children between 1 and 15 years of age, notwithstanding the fact that the population had considerably increased.

SECURING THE SERUM.

The diphtheria remedy, liquid and solid, is obtained from the blood of horses which have been rendered immune by gradually increasing doses of bacteria-freed diphtheria toxin. The diphtheria remedy is tested by Government officials for its antitoxine potency and freedom from germs, at the Royal Institute for Experimental Therapy. The diphtheria-serum horses are made immune by subcutaneous injections of diphtheria poison in gradually increasing quantities. Their blood yields, after separating from it the corpuscles, the diphtheria serum, which at the end of the manufacturing process is examined concerning its strength and which is afterwards sent for reexamination to the control station.

When the horse has been made immune, a small quantity of blood is taken from it. The blood is left in a cylinder for twenty-four hours until it coagulates, afterwards with the aid of the "égoutteur" the serum is separated from the blood corpuscles, the latter remaining in the sieve. A certificate is given after reexamination. The filling of the serum into bottles and the bottling for export is done with a "burette," which is in direct connection with the glass in which the serum is kept, and it is supplied in the strengths of 300, 500, and 1,000 units of "immunization." Diphtheria serum can only be obtained by the public under a physician's prescription, through an apothecary, it being sold at the retail prices of 16.6, 35.7, 53.5, 73.8, and 45.2 cents, and \$1.19 per dose, according to the strength of the dose; that is, in strengths of from 200 to 2,000 units of "immunization" per cubic centimeter.

GINSENG IN CHINA.

IMPORTATION AND PRICES AT TIENTSIN.

In answer to several inquiries from the United States as to the price and demand for ginseng at Tientsin, Consul-General J. W. Ragsdale replies as follows:

The customs returns of this port for the year 1906 show an importation of 27 catties (catty= $1\frac{1}{2}$ pounds) from Korea, valued at 95 Haikwan taels (tael=83 cents American currency), and 587 catties from America, valued at 5,359 Haikwan taels.

Peking is the wholesale market, buying and selling, but the dealers will quote prices only to a buyer or seller. The prices quoted by the retail dealers in Tientsin varies from \$1.80 to \$5.20 Mexican per catty, the higher priced being in greater demand. Certain grades of the wild root from Manchuria and Mongolia are valued at from eight to forty times their weight in silver, and one particular variety, thick, large, and heavy, is often retailed at one hundred times its weight in silver. The better grades are imported solely for use by the official class at Peking, and consequently is not found in the retail stores, nor does it figure in the customs returns.

The market is entirely controlled by the larger drug firms, whose representatives, at an annual meeting held at Chi Chow, usually in

December, fix the prices for all drugs, including ginseng, for the ensuing year. The only way that the American grower can determine the true value of his product is by offering sample lots through an agent, more to be supplied in case the price offered proves satisfactory. One-pound packages of different grades should be sent to an agent here for that purpose.

PRICES OF AMERICAN ARTICLE AT FUCHAU.

Responding to an inquiry from the United States regarding the sale of ginseng in China, Consul S. L. Gracey, of Fuchau, says:

The prices here at present of American ginseng range from \$4.50 to \$8 gold per pound, the figures depending upon the quality, size, color, and shape of the root, the larger roots being more desirable. The wild root is worth 20 per cent more than the cultivated article. The prices of American ginseng have been dropping of late, as the Korean product is generally preferred. Ginseng for shipment to China should be packed in strong boxes, with heavy wire or metal protection to prevent theft. [The name of the principal importer of ginseng at Foochow is indexed at the Bureau of Manufactures.]

GREEK QUININE MONOPOLY.

THE GOVERNMENT WILL TAKE OVER ITS IMPORTATION AND SALE.

As a matter of interest Mr. John B. Jackson, minister at Athens, reports that the Government has just introduced in the Greek Chamber of Deputies a bill creating a monopoly of the sale of quinine, upon which he comments:

It is a well-known fact that fevers are generally prevalent in Greece, as in most southern countries, and the consumption of quinine is relatively high as regards the extent of the population. The total consumption in 1905 is stated to have been nearly 7,000 kilos (kilo=2½ pounds), and it shows a regular increase over preceding years. Under the circumstances it is easily to be understood that more or less adulteration takes place.

The Government's object in creating this monopoly is not revenue, but an effort to protect the public against adulterations, etc., and if there should be any profits they will be applied to combating fevers by improving the sanitary conditions in unhealthy districts. The bill prevents the preparation, importation, and sale of quinine except under Government control, but six months' grace are to be allowed for the disposal of stock on hand.

FREE DENTAL SERVICE.

GERMAN SCHOOL CLINIC OPENED FOR TREATMENT OF CHILDREN.

Consul E. T. Liefeld reports that on April 22 a municipal schul-zahnklinik (school dental clinic) was opened in the German city of Freiburg, the operations of which he thus describes:

The dentist at the head of this school clinic examines all the children in the city, both in their homes and in the public schools. A

report on such examinations is sent to the parents, who are asked to send their children to the school dental clinic for free treatment.

Those children having ten or more poor teeth are first treated, an exception being made in the higher classes where those with only slight defects are to be treated, so that they will leave the public schools with sound teeth. After these worst cases have been attended to, all other children with defective teeth are to be treated, the younger ones given preference. The treatment of the teeth includes extraction, filling, crowning, etc.

There is no actual instruction in dental hygiene, but at the opening of the dental clinic the teachers explain its objects and workings to the children. The "zahnkarte" (tooth-report card) contains on the reverse side instructions as to the care of the teeth.

ENAMELED SURGICAL WARE.

BRAZILIAN MARKET AN INVITING ONE FOR AMERICAN GOODS.

It appears to Consul-General G. E. Anderson, of Rio de Janeiro, that there is an opportunity for the introduction of enameled surgical ware of American manufacture in the Brazilian market, concerning which he writes:

Within the past few years there has been considerable trade in this class of goods built up in the larger Brazilian cities in line with improved sanitation and medical methods, but at present nearly all such goods used are of French and German manufacture, the former predominating. The ware runs more to small articles, like buckets, pitchers, trays, bedpans, basins, and the like, although at least one large dealer in Rio has on display a very good line of goods for operating rooms, including tables, stands, trays, and all accessories, and it is probable that if some impetus is given the trade much can be done in several of the larger articles at least.

It is impracticable to quote prices of such goods sold here, for they vary greatly, both in relation of the same goods and to different grades of the same articles. Duties are high on such goods sold in the open market, but institutions of certain classes are enabled to import them practically free of duty. A personal representative can not only push the trade with dealers, but he can probably do considerable with institutions having a market customs duty advantage.

In this, as in practically all other trade in Brazil, long credits should be offered, the usual terms being six months, with interest at 6 per cent from date of invoice. Payment to be made, on accepted draft, through a banking house. Samples and prices will have to be submitted to the trade before any definite statement as to what can be done may be had, but the general prospect is favorable. The trade in such goods is considerable.

METALLURGY.

TURKEY.

FARM IMPLEMENTS.

PROGRESSIVE TRADE, ALTHOUGH SALE OF MACHINES IS SMALL.

Regarding the sales of agricultural implements in Asia Minor, Consul E. L. Harris, of Smyrna, writes:

While this is chiefly an agricultural country, especially the western section, which offers transportation facilities by railways and steamers, the sale of agricultural machinery is still very small and limited to the simple implements. The Turkish opposition to innovations and the poverty of the farming community render the introduction of improved appliances difficult. In spite of this, the trade in agricultural implements is steadily progressing.

About 4,000 one and two horse plows are sold every year from Smyrna alone as a distributing center to a territory extending about 80 miles north and south and 300 miles west. Of this number, 2,500 are of American origin, 1,100 come from England, and the remainder from Germany and Greece. The American types correspond to the pony series in the smaller sizes and to the one-horse series in the larger ones. They are of the chilled type, with wooden beam and handles and a depth-regulating wheel. Owing to the light breed of horses found here, two horses have to be used, when one is enough in America. The same deficiency in the way of draft power stands in the way of gang and sulky plows, which are only used for breaking new land, when oxen come into requisition. These gang and sulky plows are generally of German make, and consist of a steel bottom, with steel beam and iron handles and a two-wheel fore carriage. These plows have two land sides, one on each side of the plow bottom, practically need no guiding.

The plows coming from England are an exact imitation of the American types, even to the color of their paint and to the arrangement of their lettering. The plows supplied by Greece are an exact imitation of the German types. Both imitations do not come up to their models, either as regards quality, finish, or durability.

HARROWS, DRILLS, MOWERS, ETC.

The only kind of harrow sold here is a steel one, with diamond spikes and a lever for varying the inclination of the spikes. They generally sell in pairs of sections, each section cutting about 4 feet. Not more than 150 harrows are sold per year. Disk and spring-tooth harrows are not in demand yet, although a few farms managed by Europeans have adopted them. The use of seeders and drills is also limited and confined to the few farms under European management.

Some fifty cultivators and horse hoes of American make are sold yearly in Smyrna, chiefly for the hoeing of vines. The demand is limited owing to the manner in which vines are allowed to grow, viz, by spreading on the ground and not creeping up on walls or supports. About eight to ten years ago a larger demand existed. That was on account of the new American vines which had been planted to replace the native species destroyed by phylloxera. So long as the new vines were young and had not thrown out branches horse hoeing was possible and economical, but after the second year hand hoeing had to be resumed.

Mowers and tedders are used but little; there being no hay grown in these regions. A few are sold for mowing beans and a kind of clover. Reapers have found a wider field of usefulness, about 100 being sold yearly. They are of the self-rake type. Binders have a small sale. Not more than twenty have been disposed of all told. The lack of suitable draft horses and the scarcity of thrashing machines account for this limited demand. All of these implements come from America.

THRASHERS AND OTHER EQUIPMENT.

Thrashing machinery is sold only exceptionally, and is generally imported on demand. Their cost and the skilled handling they require stand in the way of their rapid introduction. Perhaps, also, the climatic conditions of these regions do not make their use a necessity. There is seldom a drop of rain between the months of June and October, so that the farmers can leisurely thrash their grain without fear of getting it wet, in the old fashion of trailing over it a weighted plank fitted with a multitude of flint chips, a piece of mechanism of little cost which also cuts and bruises the straw and makes it suitable for fodder. Steam thrashers all come from England. They are well made machines, with cylinders fitted, in place of spikes, with longitudinal bars similar in appearance to a very coarse file.

Corn shellers, hay forks, and the minor implements commonly used on American farms are but little employed here. Manual labor is so cheap that it often replaces with economy the work of machines, either in the preparation of the crop or in the making of implements such as forks, which are made of wood and sell at very low prices.

The sale of agricultural implements has a great future before it in this section, especially as the railroad system expands. American manufacturers should give their serious attention to the requirements of this part of the world, and they may secure from this office any detailed information which may be needed.

MACHINE TOOLS.

BRITISH TRADE LEADERSHIP—CLASSES OF EQUIPMENT USED.

Consul Harris also reports that England practically monopolizes the trade in the Smyrna district in blacksmith and machine tools. He supplies the following details:

Of late years Germany has started making some headway in these supplies, but the preference is still given to the English products,

which are imported usually through local commission merchants. American machine tools, whenever imported, have given the best satisfaction, and there is no doubt that if a proper effort were made to place the various articles before the local consumer they would soon displace all other makes.

The machine tools mostly in demand here are lathes, planers, and drills, with their full line of accessories. Milling machines, so common in American machine shops, are not used here, probably owing to the lack of specialized work. The lathes are, almost without exception, of the gap type—that is, the bed is broken near the head stock to allow the turning of work exceeding in diameter the normal swing of the lathe. Planers and shapers are of the usual style, with only the slight difference existing between the English and American practice. Drills are also similar to the American types, but of heavier build. Blacksmith drills are of the bench type for hand power, and they differ from the American tool in having the fly wheel mounted on the top and horizontally instead of on the side and vertically.

In the line of hand tools there is still a more promising field, which, however, would require careful attention until the various devices are made known and their advantages realized. The best and quickest way to attain this end is to send out competent traveling men with samples. After the first orders have been secured the appointment of a capable agent would in most cases be sufficient for the development of the trade in the various lines.

In connection with machine tools I also wish to call attention to the large amount of belting sold here, principally to flour mills. American belting enjoys an excellent reputation, and there is no reason why it should not command a share of the local trade.

PUMPING EQUIPMENT.

OPPORTUNITIES FOR THE ENLARGEMENT OF AMERICAN MANUFACTURES.

In stating that American pumps need no introduction in Asia Minor, Consul Harris reviews the trade in pumping and windmill equipment as follows:

The importation goes back some twenty-five years, and probably no less than 70,000 American pumps of various types and sizes have been sold in that time in Smyrna and from this important distributing center throughout the interior of Asia Minor. By far the greater number of pumps sold consisted until lately of the popular pitcher type, which, thanks to its simplicity and its low cost, was almost universally used in connection with the many artesian wells in this city. Of recent years, owing to the establishment by a Belgian company of an elaborate pressure water system, the pump trade has declined, especially the pitcher type, so that what remains is principally confined to the demand of the interior and the islands of the archipelago. American pumps, while having lost ground by a wide margin, still come first and command a decided preference over any other importation.

The kinds of pumps mostly in demand here and in the surrounding country are the following: Pitcher pumps, single and double acting

force pumps of the vertical or horizontal pattern with brass or iron cylinder, brass or iron working sections with the accompanying deep-well standards, and such accessories as foot valves, stuffing boxes, strainers, etc. The piston wooden pump and the wooden chain pump, so commonly used on American farms, are not known here, and it is probable that, owing to the dryness and heat prevalent in this region during the summer months, they would not prove satisfactory.

SPRAYING PUMPS AND WINDMILLS.

A line of pumps for which there is a great demand and in which the United States has no share is the spraying pump, used in connection with various chemical solutions such as copper sulphate, lime water, etc., for the treatment of vine parasitical diseases. A large number of these pumps are sold annually, especially in years of unusually late rains, for fighting peronospera of the grapevine, and the bulk of them are imported from France. They are of the knapsack type and retail, on an average, at about \$7 each. They are of a simpler and cheaper construction than the corresponding article in the United States, but they have proved satisfactory. I am convinced that American makers who would take up the manufacture of a similar pump would meet with success here.

Imported windmills are all of American make, represented by the galvanized steel article, direct stroke or back-gearred. The use of windmills for pumping purposes is chiefly confined to the immediate neighborhood of Smyrna, where hundreds are in use. The interior is proving rather slow in adopting them, probably owing to the absence of the regular winds with which the Gulf of Smyrna is particularly favored, and also to the lack of funds of the inland farmer. The American steel windmills have been successfully imitated here, and the cheapness of local manual labor enables the counterfeit product to undersell the original. There is a promising field for American windmills, especially if care is taken to reduce to a minimum their cubic measurement when packed for export, so as to economize in freight.

AN IRRIGATION MECHANISM.

By far the most popular pumping appliance for irrigating purposes is the "noria," which is used throughout the interior and which is, without doubt, a very efficient apparatus. As I believe the contrivance could be made in the United States at advantageous figures, and for the benefit of manufacturers who might care to take up the article, I will briefly describe its construction:

Buckets of rectangular shape, made of painted or galvanized sheet iron, are fastened to an endless chain made of iron links. The number of buckets and links varies according to the depth of the well. This chain passes over a drum which revolves around a horizontal axis at the top of the well. This drum is divided into 6, 8, or 10 radial partitions opened on one face of the drum, and serving the purpose of collecting the water pouring out of the buckets as they reach the top of the drum. A pair of bevel gears transmits to the drum the power of the horse treading around the well.

The "noria," from its simplicity, appeals to the farmer, who needs no skilled labor to keep it in repair. It is manufactured here, and

sells from \$75 to \$100, according to the number and size of buckets. With the improvements that American ingenuity could easily bring to its construction and with the help of machinery to turn out cheaply each part, I have no doubt that success would attend any efforts made to supply this particular demand.

ELECTRICAL EQUIPMENTS.

PROBABLE OPENING FOR AMERICAN MECHANISMS AND SUPPLIES.

Consul Harris furthermore states that the several concessions which have been granted recently by the Sultan for electric light and traction make it opportune for the consul to report as follows on the conditions which prevail there in regard to electrical machinery, and on the prohibitive attitude of the Turkish Government toward the importation of any kind of electrical apparatus:

This opposition to the various electrical appliances which have of late years so transformed modern life elsewhere places the Ottoman Empire in the strange position of a country at the very door of European refinement and progress, but lacking almost entirely in the conveniences of modern civilization. Turkey is practically a virgin soil for electrical enterprise. Up to a year ago there was not a single city or town in the 800,000 square miles of Turkish possessions which could boast of a telephone system or of a central station for electric light or power purposes. Now Damascus and Beirut have their electric central stations, however queer it may seem that the former ancient city should lead in progress the important and quasi European cities of Constantinople, Smyrna, and Salonica. Quite recently concessions were granted for electrical light and traction in Constantinople, Salonica, and Brussa. Smyrna, the second city in the Empire, and perhaps the first in commerce and future prospects, seems to have no immediate future for electrical appliances, although perhaps no city feels more the need of them. It is rumored, however, that permission has been granted for the electrification of the 2-mile tramway line between Smyrna and the suburbs on the southern shore of the gulf.

Aside from a few isolated plants in mines and private residences, the concessions referred to represent the sum of electrical work in Turkey. Belgium has so far taken the lead in securing large contracts, while Germany, with the exception of the Constantinople concession, nearly monopolizes the smaller business, the material for which has to be imported by special permission from Constantinople. The prohibition now covers everything relating to electricity, even the serviceable electric bells, which can not be imported except with the approval of the direction of customs in Constantinople. It is persistently rumored that this unaccountable prohibition of electrical apparatus will be raised within the near future, and although in this country the near future happens generally to be much more remote than elsewhere, the concessions lately granted without too great reluctance and in rapid succession tend to confirm these rumors and establish the hope that the change is coming soon. It would therefore be wise for American manufacturers of

electrical appliances to turn their attention to this unexplored field and use their characteristic energy in securing a fair share of the coming trade.

LOCOMOTIVES IN BRAZIL.

LARGE INCREASE LAST YEAR IN THE IMPORTS FROM THE UNITED STATES.

The following report concerning locomotives in Brazil, and the countries whence they were imported, is furnished by Consul-General George E. Anderson, of Rio de Janeiro:

The imports of American locomotives into Brazil in 1906 were more than threefold the value of the imports in 1905, and more than sixfold the value of those of 1904, but German manufacturers, who had been all but driven out of the market, have recently secured an order for 17 locomotives, in competition with American machines. The situation is consequently one of considerable interest, and needs the careful attention of American locomotive builders. The order just received by the Germans represents the new railway enterprises in the State of Rio Grande do Sul and that portion of Brazil, and is not only important in the size of the order itself, but in that it is the beginning of the enterprise, and the orders placed now are likely to have a very important bearing upon future business. The situation is further accentuated by the understanding, positively stated here, that this German success was due directly and solely to the fact, that the German Government has granted to the concern in question an export bounty which practically equals the freight to Brazilian ports. The exact nature of the bounty is not stated, nor can any details of the matter be had here.

The imports of locomotives and their parts into Brazil during the past three years have been as follows:

Origin.	1904.	1905.	1906.
Germany	\$25, 179	\$16, 493	.....
United States	124, 412	231, 420	\$753, 735
Great Britain	171, 847	333, 283	247, 152
Others	18, 541	44, 953	69, 633
Total	339, 979	626, 149	1, 100, 520

It will be seen from this table that while the imports of locomotives in Brazil have trebled in three years the proportionate portion of the imports from the United States have increased over sixfold, and while the increase in the total imports between 1905 and 1906 was about 75 per cent the increase in the imports from the United States was something like 250 per cent. As a result of this very large increase in the imports from the United States, Germany fell so far below its former record in 1906 that imports from it are not separately listed. The imports from Great Britain fell off about one-fourth, and, allowing for the imports from Germany, the imports from all other countries were of a similar nature.

CLASSES OF LOCOMOTIVES IN USE.

There are three classes of locomotives used in Brazil in general. Ordinary railroad locomotives of varying weight and speed, hill-climbing or cog locomotives for mountain work, and small locomotives for use on railways serving the large coffee and sugar estates, often forming also a connection for a regular railway system in serving a country in general. Of the small locomotives American manufacturers have been furnishing their full proportion, in spite of the fact that some of the largest estates are owned or controlled by foreign capital and naturally disposed to buy locomotives from the manufacturers of the country it represents. Of the cog or hill-climbing locomotives, the American manufacturers are furnishing less than they did. American cog locomotives were tried and preference was given to those manufactured by a single firm in Germany, which makes a specialty of that class of locomotives. It is doubtful if American locomotives of this class had a fair trial, although, of course, in such matters there is room for considerable difference of opinion as to the showing made by them. It suffices to say, perhaps, that in a test made by foreigners in competition with foreign locomotives they did not win. In the first-named class there has been the open competition which has given American manufacturers their business.

It should be realized in this connection that the majority of the railways of Brazil are owned by European syndicates, and many of the Government lines are controlled to a greater or less extent by contracts with English or other foreign capitalists. Many of the Government lines are leased to such companies, many others operated by companies under a guaranty of interest from the Government, with a reversionary interest in the Government, and still many others are owned outright by foreign capital. It is unreasonable to expect that, other things being nearly equal, English railway capital will purchase American locomotives. The English trade in locomotives has been due largely to the fact that most of the railroads are controlled by English capital.

MUST STAND HARD SERVICE TEST.

On the railroads owned by the Government outright and controlled by it American locomotives have dominated the situation, and it is in this field particularly that there is need of prompt consideration of the effect of bounty giving on the export business of Germany. German and Belgian locomotives have heretofore enjoyed a poor reputation in Brazil. They have been cheap, but they have not been able to stand the test of hard service, for service in Brazil is hard on almost all sorts of machinery for a number of reasons. It is considered very doubtful if the present orders given by Brazilian roads will result satisfactorily. At the same time this present threatening change in the course of a business which has been very satisfactory to the United States stands as something to be given most earnest consideration.

There was considerable increase in the average size of locomotives imported in 1906 over the average for 1905, but the average is still low, and the rolling stock of Brazilian roads generally continues

very light in weight and unsubstantial in appearance. There is constant improvement in the roadbeds of the better systems, however, and it seems probable that the next few years will show considerable change in the nature of imports of railway machinery, supplies, and accessories, and this change is most likely to be reflected first of all in orders for heavier and swifter locomotives.

STEEL RAILS AND RAILWAY ACCESSORIES.

As to steel rails and railway accessories generally, there has been a general increase in the imports into Brazil from the United States and Great Britain, in line with the increased imports for last year over the year before and over 1904. There has been a great falling off in the imports from Germany, while the vast bulk of the business still goes to Belgium.

It is generally accepted as a fact here that all such business is in the control of a business agreement which has so divided the world that there is practically no competition in such lines in this field. It is the understanding that Belgium and Great Britain are to have this trade, and American shipments come into this market only in the way of dumping goods not needed at home or when for some reason it is advisable to dispose of a lot of goods at very low prices—a contingency which does not develop very often in the present state of the steel market in the United States.

SEWING MACHINES.

GREECE.

PRESENT SELLING SYSTEM AND METHODS OF PAYMENT.

Consul-General George Horton, of Athens, describes the Greek markets for sewing machines as follows:

The sewing machine chiefly sold in Greece bears a well-known American name, but is manufactured in Scotland. It was introduced here in 1882, and the progress which the business has made is shown by the fact that 34 agencies are now maintained in Greece, 5 in Crete, and 11 in Epirus and Albania.

Sales are made mostly on the installment plan, and two kinds of machines are kept in stock—hand-worked, at 140 drachmas each (5.45 drachmas equal \$1), 18 drachmas down and 3 drachmas weekly payments, and foot-worked machines, at 315 drachmas and up, 25 drachmas down and 12 drachmas the month. Of these higher priced machines, the one most largely sold brings a cash price of 218 drachmas or 315 drachmas on the installment plan. If full payment is made within three months the interest (so called) is remitted. For some reason or other the local representatives of the company in question refuse to say how many machines they sell a year, but their sales are probably large, as their machines are in common use throughout Greece.

A German sewing machine company is also represented in Greece, and its agent claims that he sells about 3,500 machines a year—a figure which seems a trifle inflated. These machines are cheaper than

the "American" mentioned above, and are sold on about the same terms. Some other brands of sewing machines can be found here, but they do not sell to any great extent.

[The names of the principal dealers in sewing machines at Athens are on file at the Bureau of Manufactures.]

SOUTH AFRICA.

AMERICANS INCREASING SALES—CARELESSNESS IN PACKING.

Writing from Durban, Consul E. S. Cunningham furnishes the following information regarding the sales of sewing machines in that part of Africa:

American sewing machines are undoubtedly the most popular throughout the colony of Natal, although English and German manufacturers are making rapid progress in the perfection of their machines and are steadily increasing the general sales in all the colonies of South Africa. There seems to be a greater demand for the hand sewing machines of the cheapest sorts, and in this line of goods the American manufacturer appears to be out of the competition; but in the higher grades the American machine excels all other makes and stands in a class quite by itself in giving general satisfaction.

There are numerous complaints from both the agents and purchasers of the cheaper grades of the American make that the machines are not properly set up; that they have been carelessly assembled and packed, and show evidence of the "hurry-up" methods of some of the American manufacturers to fill rush orders, regardless of the interests of either the agent or purchaser. The claim is made that the American sewing machines of the lower grades are poorly constructed in every particular and have no durability as compared with those of the English and German make of similar grade. The prices of sewing machines in Natal range all the way from \$6.08 to \$91.80.

The value of sewing machines imported into Natal during last year amounted to \$92,900, and in 1905, \$110,919. It is quite probable that many of the sewing machines included in this were for sale in other colonies of the union. The total importation of sewing machines into British South Africa for the year 1906 was valued at \$252,436. [A list of the dealers in sewing machines at Durban is furnished by the consul and is indexed at the Bureau of Manufactures.]

MACHINERY IN AUSTRALIA.

LARGE INCREASE IN THE IMPORTS FROM ENGLAND LAST YEAR.

Consul-General John P. Bray, of Melbourne, reports that British metal goods and machinery show substantial increases in their sales in Australia, as the following illustrates:

The principal articles of metal goods, under 25 headings, imported from England during the year 1906, amounted to \$16,479,695 against \$12,624,280 in 1905, an increase of \$3,855,415. This increase is spread over nearly all items. Galvanized iron increased from \$3,552,667 to \$4,201,686; wire manufactures from \$1,363,199 to \$2,186,168; tubes

and pipes and fittings from \$998,561 to \$1,333,187; steel bars, angles, rods, etc., from \$459,431 to \$649,482; iron bars, etc., from \$795,234 to \$951,668; rails from \$379,391 to \$806,442; copper manufactures from \$343,346 to \$580,436; cutlery from \$476,536 to \$492,100; and hardware from \$837,092 to \$1,079,836. The quantities of some of the principal articles shipped from England to Australia compare as follows:

Articles.	1905.	1906.	Articles.	1905.	1906.
	<i>Tons.</i>	<i>Tons.</i>		<i>Tons.</i>	<i>Tons.</i>
Pig iron, etc.....	34,085	49,223	Tin plates.....	17,449	16,159
Iron bars, rods, etc.....	23,767	26,455	Tubes, pipes, etc.....	17,360	20,873
Rails.....	15,052	26,046	Nails, screws, and rivets.....	2,423	3,235
Wire manufactures.....	14,892	20,742	Bedsteads.....	1,266	1,673
Galvanized iron.....	54,394	60,883			

Exports of machinery from England to Australia, exclusive of electrical machinery, increased from \$3,341,975 in 1905 to \$4,546,123. The increase has been in both steam and other engines. Locomotives amounted to \$161,402, an increase of \$48,085. In agricultural machinery, steam amounted to \$213,005, or an increase of \$101,773; and other descriptions to \$172,853, the increase being \$36,581. Mining machinery, however, fell from \$379,036 in 1905 to \$319,135 last year.

MACHINERY FOR EGYPT.

INTRODUCTION OF MODERN FARMING AND ENGINEERING APPARATUS.

An importer of agricultural machines, writing in the Bulletin of the International Chamber of Commerce in Cairo, comments upon the scope which exists in Egypt for the cultivation of the engineering industry and observes:

The imports have more than quadrupled between 1902 and 1906, viz, from \$261,550 to \$1,194,950. Of the latter total \$920,000 represented machines of British manufacture. The writer states that the prospects for this year are still more satisfactory, and he quotes with approval the efforts of makers which are tending to the mechanical perfection of the engines built to cope with the peculiar conditions of Egypt. He foresees the time when the mass of the fellaheen population will employ agricultural implements of European make and of the most modern type, and he looks to the opening up of an illimitable market in the Sudan, where, to repeat words recently spoken by the sirdar. "All is cultivable. The desert is not sandy, as in Egypt, save in scattered parts, and the area suitable for maize, cotton, and cereals will run into hundreds of thousands of acres." Of the preliminary leveling and surveying of the Nile valley between Khartum and Wady Halfa, 465 miles are reported to be within measure of completion.

The trend of public works in the Sudan, apart from the new bridge at Khartum and the future central railway station which, it is understood, is to be erected after the bridge, may be realized by the credits lately opened—\$200,000 for the extension of the railway line between Abu Hamid and Krennak; \$38,000 for preliminary surveys of railway lines between Athara and Kassala, Omdurman and El Obeld; \$29,900 for the survey of lines to the Blue Nile; \$24,000 for wharves at Suakin, and credits for light-house construction on the Red Sea coast.

Among the government works either in progress or lately placed with contractors are extensive earth and masonry works for the extension of the Damaris Canal and the government drain, comprising 12 road bridges, 7 culverts,

siphons, and regulators. Similar operations or enlargements and revetments are in progress on the Tintah Canal, Ab-del Hamid Canal, the Nile banks in the Ghrga directorate, the Khandok Sharki Canal, this last involving pumping. A credit has been opened for the construction of a small barrage on the Rosetta Nile, while more extensive works are those represented by credits of \$430,000 for further extensions to Alexandria Harbor; \$250,000 for the installation of water-supply plant in three provincial towns; \$80,000 for lighting installation, and \$50,000 for roads.

The drainage question in Cairo—an immense work when begun—is still under consideration, the main problem for solution being the selection of a site for sewage disposal. Building in Cairo is likely to be active, owing to the construction of a new Khedivial opera house modeled on the great theaters of Europe. It may not be inopportune to mention that building construction is done almost exclusively in armored concrete in Egypt, and in this respect, as in many others, Egypt is far in advance of not a few European countries.

It is reported that several prominent members of the French community in Cairo are studying the possibility of founding a school of engineering modeled on those of France.

AMERICAN MACHINERY CONDEMNED IN THE SUDAN.

According to a report furnished to the British Government by Captain Kennedy, director of the public works department in Sudan, he finds that British firms are defectively represented in that part of Egypt, and that all American machinery is "absolutely inferior." As regards American machinery, he says:

A certain amount of special plant has been received from America, and this, though excellent in design, has been in every single instance of an inferior quality structurally. For example, some well-boring plant—of the American oil-well type—though admirably designed, was of the very worst description, with faulty castings and bearings, and unfinished machine work. Some steam road rollers also, designed for special work, were found to be manufactured and finished in a manner that certainly fell far short of the ordinary British standard. In consequence of this, it has in some cases been found advisable, in the case of special plant of American types, to obtain the detailed designs from America and have the manufacture of the same carried out in England.

METAL BEDS.

MEXICO.

OPENING FOR THEIR SALE—TRADE OF THE UNITED STATES.

Consul V. L. Duhaime reports that there is a splendid opening for the sale of metal beds, springs, and bedding at Saltillo, Mexico, concerning which he writes:

Besides the United States, England is the only country exporting bedsteads to this district. In respect to quantity the trade is about equally divided, but considering the value, England leads in the ratio of 2 to 1. England sends in nearly all the high-priced bedsteads and the United States the more common article. This poor showing may be attributed to the indifference shown by American exporters in this line of goods. The trade they have had from here has gone to them instead of their coming after it, which is a good showing, considering that it has been obtained without effort. If this market were worked as it should be, success would result.

Iron bedsteads sell here at retail over 100 per cent higher than in

the United States. The duty on articles of iron is, for the first 10 kilos (kilo=2½ pounds), on each article 22 cents per kilo, and for each additional kilo 12 cents. Ornamented bedsteads pay the same rate of duty, providing iron is the predominating metal. The Mexican currency is worth about half that of the United States. The customs duty is not likely to be changed within the near future.

A representative would accomplish more by a personal survey of the conditions in establishing a permanent business here than all the correspondence and advertising could for years. It is impossible for a Spanish-speaking representative to employ an assistant here to tell him his business; but the Spanish interpreter can always be secured and employed without discredit. [A list of the hardware and furniture dealers, commission merchants, and banks at Saltillo is furnished by the consul, and is indexed for reference at the Bureau of Manufactures.]

NORWAY.

SMALL CHANCE FOR THE SALE OF THOSE MADE OF IRON.

In reply to an inquiry from an American manufacturer of iron bedsteads regarding the chances for the introduction of his goods in Norway, Consul Felix S. S. Johnson, of Bergen, writes as follows:

The wooden bedstead made in this country is sold at such a low price that it would be impossible to place an iron bedstead in competition therewith. Iron and other metal bedsteads were imported in former years from England, Germany, and Denmark, but owing to an increase in the tariff to about 5 cents per 2.2 pounds, very few, if any, are now imported. The class of bedsteads formerly imported from Germany and Denmark is now made in Norway, and the English bedstead, somewhat after the style of the American, is only imported by individuals whose tastes run that way. The formerly large consumption of cheap English bedsteads has been replaced by the Norwegian-made article.

I do not believe it would be worth the while of an American firm to try to establish a trade in iron bedsteads in Norway, to advertise in the local papers, or to send a salesman hither. I send the names of the leading dealers in furniture in Bergen [on file in the Bureau of Manufactures], and would recommend that all correspondence therewith be in Norwegian or German.

SAFES IN CUBA.

SPLENDID OPPORTUNITY FOR EXTENDING THEIR SALE.

Consul M. J. Baehr, writing from Cienfuegos relative to the prospects of selling American safes in Cuba, says:

A good live salesman, who speaks Spanish and is thoroughly acquainted with the customs and character of the Cuban merchant and people, should find no difficulty in introducing American safes. There

is no country having fewer safes than Cuba, because burglary is not common, and "safe blowing" is unknown. However, there is a tendency among business men to replace their ancient lock-and-key cajas, which are invariably found here, with the modern combination safe, and even doctors, lawyers, and planters could easily be persuaded to buy a modern safe. One local firm representing an American manufactory claims to have sold 700 safes during 1906.

Practically all business houses employ one or more English-speaking clerks, but all communications should be in Spanish, so the owners can read the letters and not have to hand them to a clerk for translation, who in nine cases out of ten never conveys correctly the ideas expressed. Besides, it facilitates correspondence, and undoubtedly impresses the merchant, coming as it does from a foreign country. It tends to create confidence in the sincerity of the foreigner's intention to establish lasting business relations; it puts the prospective customer on the right track, and produces that friendly and familiar feeling so necessary for success which is almost impossible to obtain by means of interpretation.

[A list of firms in Cienfuegos which would probably be interested in handling safes is forwarded by the consul. He also suggests, as another source of possible trade, the large sugar estates in Cuba. A list of these and of the Cienfuegos business men are on file at the Bureau of Manufactures.]

SWISS ELECTRIC ENTERPRISE.

NEW POWER INSTALLATION SAID TO BE GREATEST IN EUROPE.

Consular Agent E. L. Phillips, of Chaux-de-Fonds, writes that the Swiss hydro-electric enterprise of the Lake of Brusio, in the Canton of the Grisons, the machines of which were first set in motion on March 10, is without doubt the most important upon the Continent, which he thus describes:

The water of the River Poschiavo is caught at the base of the Lake Poschiavo, which is used as a controller or regulator for the reservoir and conducted by a 3-mile conduit into the reservoir 1,378 feet above the central station. From this reservoir the water is brought into the hydraulic station by means of five conduits fastened in the craggy rocks to a wall nearly vertical.

The station now contains six groups of dynamos with, respectively, a force of 3,000 horsepower each. During this year there will be added four new groups, and in 1908 the two last, which will complete the installation and thereby enable the station to produce an energy of 36,000 horsepower. A portion of this will serve to the needs of the Valley of Poschiavo and for the future electric railway of the Bernina. The contractors will reserve for themselves 16,000 kilowatts, and this power will be distributed in the industrial region south of the lakes of Como and Majeur by the means of a cable 100 miles in length. This great undertaking is the property of a Swiss company, and its installations are due entirely to Swiss industry.

American Locks in France.

Relative to the lock trade in France, Consul-General Robert P. Skinner, of Marseille, writes as follows:

The trade in imported locks in France is not large, the importations in 1904, 1905, and 1906 being only \$128,924, \$109,817, and \$145,136, respectively. Such American locks as I find in this market—and they are not pushed with any energy—filter through from general agencies in Paris. The usual reply of retailers is this: "As American locks are more expensive than those of French make, few are sold. The demand is so small that we can not afford to buy directly of your manufacturers."

The ordinary French lock is so inferior and the key so cumbersome that it is surprising the demand for the American article is so small, even at a higher price. I forward addresses of importers who might perhaps be induced to represent the American trade, and also the names of certain local dealers in locks. [The list can be had by application at the Bureau of Manufactures.]

ALUMINUM INDUSTRY.

EXPANSION IN MANUFACTURE AND UTILIZATION.

A correspondent of the London Times writes as follows concerning the aluminum industry:

All the works engaged in the industry are now producing to the extreme limit of their capacity, while enlargements and extensions are being planned by most of the controlling companies. Aluminum in sympathy with copper, tin, zinc, and lead has shared in the greatly increased demand, and the enormous rise in the price of copper and tin has no doubt served to widen the field of application of the rival metal. The growth of the motor-car industry, in which aluminum is now being extensively employed, has also helped to increase the consumption of the white metal.

The present annual output of the metal is between 15,000 and 20,000 tons, but as all the manufacturing firms decline to publish any figures of their production, no very exact estimate of the aggregate production is possible. All that can be stated with certainty is that the demand in England, France, and the United States exceeds the supply. As regards utilization, the limitations of aluminum are now recognized and understood, and the metal is being employed to an increasing extent in the arts and industries, for work which does not demand great mechanical strength in the metal employed. For covering in the machinery and moving parts of motor cars, it is well adapted on account of its lightness, and for this purpose, and also for the interior and exterior paneling of electric-railway cars, it is being used to an increasing extent. In the metallurgical industries the impure metal is finding employment for clearing molten iron and steel from oxides before casting, and for reducing what is known as "segregation" in steel ingots. The application of the metal for household and culinary vessels, as well as for small ornaments and toilet articles, has long been known.

In America 56 installations of the metal for electric-power transmission purposes can be found, some of these being in connection with schemes of considerable magnitude and importance. This application of the metal has not been followed up in Europe, where doubts exist in the minds of engineers as to its suitability for outside work involving long-continued exposure to a humid atmosphere.

MINING.

COAL PRODUCTION.

NATAL.

DEPOSITS ARE EXTENSIVE AND A GROWING SOURCE OF WEALTH.

In describing the coal-mining development in Natal, Consul E. S. Cunningham, of Durban, calls attention to the opening thus created for the sale of American machinery. His letter reads:

The mines department for the colony of Natal has just given out a preliminary statement of the colony's mineral output for the year 1906. We are informed that the mineral output was valued at \$2,573,472, and consisted of 1,238,713 tons of coal, 50 tons of lime, 73 ounces of gold, and 3 tons of copper ore, the last named being only for samples. During 1905 prospecting was carried on for both asbestos and graphite, but nothing was done last year toward their development.

The colony of Natal can not lay claim to the possession of either gold or diamonds, but of coal and of iron ore she has a supply that may make her rich, owing to her proximity to the coast, in a line different from other sections of South Africa. Mining has not been seriously considered heretofore by Natal as an industry, but there is no doubt that in the development of her coal, and probably also iron industry, there is great wealth that will give the colony a strong position as a mining district.

STEADY DEVELOPMENT.

In 1905 the output in Natal reached 1,120,407 tons, and 1906 increased the quantity mined to 1,238,713 tons (graded and classified as 1,027,985 large, 166,903 nut, and 43,825 small), valued at \$2,561,486. This is a bagatelle in the world's production and estimate; but to Natal the industry is greater and probably possesses greater potentialities than does any other industry, and it seems well in the bounds of possibilities that the coal mining in this colony will in time cut some figure in the world's output. The proven fields are very extensive and it is known that millions of tons can be mined annually during all this century and not exhaust them, and yet the proven fields are small in comparison to what there is good reason to believe will be found when the prospecting is extended over the entire coal area.

During these times of depression the coal mines are a source of great revenue to the colony. Their operation furnishes the government railroads an income through the freight paid of \$30,000 to \$35,000 per week; they also provide the industries established here with fuel at a price that enables them to continue operation, when if they should depend on the supply of that power on the fuel brought from Wales it is almost certain that they would have to suspend operation. There are 25 collieries established in the colony, which

gave employment to 6,916 men in 1906. Five of this number produced more than 100,000 tons each, and one of them mined 215,517 tons. There are employed in the mines Europeans, natives (Kaffirs), and East Indians. Indians and Kaffirs work side by side in each mine.

MINING MACHINERY.

As the coal mining develops, new machinery will be purchased by the different collieries, and American manufacturers and exporters should come in for a larger share than they have heretofore. As a general rule, the engines and washers in use in the mines of Natal are English and Scotch make. One company made an innovation last year and installed a German washing plant at a cost of over \$25,000. The reason assigned for the purchase of the German was that the running expenses were less than of other machines. An American washer is now on its way to be installed in another mine. The coal-cutting machinery is of American make in most of the mines.

In the infancy of an industry, which bids fair to be one of importance, a reasonable expense in introducing and satisfactorily installing machinery would be fully justified, as future orders will be sure to follow as the industries develop. Such seems to be the condition of the Natal coal-mining industry. This coal is said to be the best south of the Equator, and with such an article for sale the future of the industry would seem to be dependent only upon the commercial and industrial prosperity within the limits of the territory supplied from here. The coal exported last year amounted to 382,437 tons, while 487,892 tons were bunkered by vessels. For the benefit of any who desire to inquire by post of the different companies and their intentions regarding future purchases, I forward the names and addresses of the principal coal-mining concerns operating in this colony [addresses on file at Bureau of Manufactures].

BRAZIL.

A POSSIBLE MARKET FOR AMERICAN PRODUCT.

Writing from Rio de Janeiro, Consul-General G. E. Anderson states that the possible market for American coal in Brazil seems to be attracting American fuel men, and possibly the interest will take the form of a movement to dispose of some of the product of Mississippi Valley coal mines by way of New Orleans. The consul-general adds:

The imports of Brazil in 1905 of coal and patent fuel (briquettes) amounted to substantially \$6,300,000, of which Great Britain sent almost 99 per cent. The United States sent about two-thirds of the rest. The import statistics for 1906 for all Brazil are not yet to be had, but the imports into Rio de Janeiro were 741,545 tons, as compared with 544,864 tons in 1905, and this proportion of imports is probably the same for the entire country. Practically all of this coal comes from Cardiff, and it may be said that almost the total of the consumption here is of the higher grades of South Wales steam coal. Several shiploads of American coal, generally Pocahontas coal from Norfolk, have come in during the past year, and one load during the current year to date, but the cargoes are small, in sailing vessels, and represent more of a speculation than a regular business.

QUALITY OF COAL CONSUMED.

In catering to the fuel trade of Brazil it should be realized that there is a very small demand for coal for industrial purposes generally. Manufacturing industries of a general sort have been developed but slightly, and the factories now in existence, by reason of the total lack of native fuel, have been constructed more with regard to water power, or similar conveniences, than anything else. The vast mass of the coal consumed is by railroads and steamships calling at Brazilian ports. For the railroads the same general principle that runs in many lines of Brazilian import trade is to be applied, namely, that the roads are owned by British capital and that as far as possible and whenever possible preference is given to British products. Many of the roads are mountain lines upon which space is a very important element in locomotive matters. The demand, therefore, is for coal of the highest steam power per unit. This consideration more strongly applies to the coal needed for steamships. Fuel of the highest calorific quality only is wanted, and it is practically impossible to even secure consideration for any other fuel than British. The officers of the vast majority of ships touching at Brazilian ports are English, and they want English coal. Then, too, there have been complaints that American coal brought here is dirty and that it contains more waste than English coal.

Whether those complaints are well founded or not, much American coal can be sold here. The very fact that some American coal is brought here is demonstration in itself that there are possibilities in the business. There is no duty upon coal imported in Brazil, although there are certain charges which amount to a small duty. The South Wales coals now being sold here vary in price from about \$9.50 to \$11.25 a ton, depending upon quantity and other conditions, delivered on the dock at Rio Harbor. It costs about \$1 a ton to dock it, but such a charge would vary with conditions, and coal by retail or to buyers not under contract would probably average something like \$17 a ton. Briquettes are \$10 a ton on the dock in large quantities. American coal now coming here is used very generally for mixing. The freight on the last cargo landed was \$3 a ton from Norfolk, the consignee unloading it.

Whether there would be an opening for shipments from New Orleans would depend upon freight arrangements from that port to be made there, assuming that the coal could be sold here. To sell coal here would require sample consignments and considerable work. I am convinced, however, that there is an opportunity here for American coal interests. [Names of firms with whom correspondence can be had, which should be in Portuguese, are filed at the Bureau of Manufactures.]

CANADA.

STRINGENT PROVISIONS FOR THE PREVENTION OF A MONOPOLY.

The Canadian government has adopted stringent regulations to prevent coal lands in the Yukon from being held for speculative purposes. Leases for coal-mining rights will be granted for twenty-one years at an annual rental of \$1 an acre, payable in advance. No applicant shall be allowed to lease more than an area of 2,560 acres.

The tract must be contiguous, and the area shall not exceed 4 miles in its greatest dimensions. Applications are to be made through the Dominion lands agent or a subagent of the district.

In unsurveyed territory the application must be made within thirty days after its being located. Where a dispute as to location occurs, the right to the lease will be decided by the minister of the interior upon hearing evidence. The lease shall include coal-mining rights only, but the lessee, upon application, may be permitted to purchase at the rate of \$10 an acre whatever area of the available surface rights the minister may consider necessary for the efficient and economical working of the coal-mining rights granted in the lease. The lessee must begin operations in one year from the date of his being notified to do so, and shall produce the quantity of coal specified in such order.

LIMITED TO TEN TONS AN ACRE.

The order will not be given until the expiration of one year. In no case will the maximum quantity required to be mined during each year be over 10 tons an acre leased. If this order is not complied with then the lease will be subject to cancellation. The lessee can not assign his rights without leave of the minister.

Actual settlers shall be entitled to buy at the pit's mouth what coal they may require for their own use, but not for barter or sale, at a price not to exceed \$1.75 a ton. A fee of \$5 is charged for each lease. In addition to the rent a royalty of 5 cents a ton of 2,000 pounds will be levied on the output of the mine. A sworn statement of the output must be given by the person operating the mine. In default of this the lease may be canceled. In case of disputes provision is made for arbitration.

FUEL FAMINE IN BRITISH COLUMBIA.

Consul L. Edwin Dudley, of Vancouver, reports as follows concerning the coal troubles in British Columbia:

Notwithstanding the fact that all portions of this province are abundantly supplied with coal and other fuel, we have suffered a "fuel famine" during the past winter; and the recent walk-out of the miners in the eastern portions of the province promises a continuation of the trouble. Already smelters and other industrial establishments have been obliged to suspend operations for the lack of coal and coke. One of the railways, according to the newspapers, is refusing to move any freight except that of a perishable nature. Great effort is being made by the government of the province and the adjoining province of Alberta to bring about a settlement between the coal companies and their employees.

OPALS, SAPPHIRES, AND DIAMONDS.

AUSTRALIA.

RARE GEMS FOUND IN QUEENSLAND—EXTENSIVE SUPPLY.

Special Agent Harry R. Burrill, writing from Brisbane, furnishes a report on opals and other precious stones found in Queensland, which will interest lapidaries. Mr. Burrill suggests that a profitable trade with the United States may be established in gems. He writes:

Queensland is not only the home of the opal, but competent authorities declare that the State contains a greater variety of gem stones than any other country in the world. Unfortunately, however, because of natural obstacles difficult to surmount, the opal industry has not developed as rapidly as the excellence of the gem should warrant, but in spite of trying climatic conditions and other handicaps which confront the miner in the quest for these exquisitely colored stones, it is estimated that opals valued at fully \$1,000,000 have been found in the Queensland field and distributed all over the world.

The opal is found in matrices of ironstone, sandstone, and occasionally in pipe clay, and is roughly classed as boulder opal, sandstone opal, and pipe opal. The commercial value of the uncut gems depends so entirely on their quality that it is difficult to quote prices with any degree of accuracy without giving a detailed description of a particular gem and affixing thereto its value in the fields. The same difficulty obtains with regard to opals after they leave the lapidary's hand, consequently no attempt is made in this report to give the cost price of opals, cut or uncut, in Queensland.

The noble, harlequin, fire, and pin-fire opals are known the world over, but a variety of the stone recently discovered is comparatively unknown, except possibly to the trade. The black opal, so called, has been described by a writer who saw it for the first time at the New Zealand exhibition at Christchurch, as follows: "They combine the iridescence of the dewdrop with the color of the rainbow set in the blackness of night; they are a smothered mass of hidden fire." This description, fanciful though it may be, gives a fairly accurate word picture of the wonderful and varied colorings of this remarkable stone. Somewhat sombre at first glance, its beauty does not immediately appeal to the observer, but a closer inspection reveals the "hidden fire" and discloses a gem of exquisite beauty. As yet its commercial value is problematical because of its recent discovery and the unfamiliarity of the public with its existence. It would seem, however, that if the black opal were brought to the attention of the gem lovers of the United States a market of more than ordinary importance might be developed.

OPPORTUNITY FOR AMERICAN TRAVELERS.

In order to establish a trade in a commodity comparatively unknown to the consuming public, a campaign of education is usually required, but in this instance, to the army of American gem enthusiasts, a kindergarten course of instruction would be all sufficient, for this stone itself, properly exhibited, would teach the full lesson. Add to this a system of judicious advertising so that the American public may be informed that the rare and beautiful black opal of Australia is on view, and the chances for its favorable reception appear excellent. This suggestion is made with a view to outlining to the importing jewelers of the United States the possibilities for the establishment of a lucrative and constantly expanding business in black opal. If, after a careful investigation of the market, they are convinced there is a favorable opportunity for the introduction of this stone, then no time should be lost in setting the machinery in motion. In this connection, and for the purpose of encouraging the development of the gem trade between the United States and

Queensland, the name of one of the leading business houses of Australasia has been placed on file in the Bureau of Manufactures. The headquarters of this firm are at Brisbane, the capital of Queensland, and its managing director would be pleased to enter into communication with responsible American houses with a view to the substantial increase in the export of gem stones from Queensland to the United States.

The sapphires of Queensland deserve especial attention. They are of every shade of blue, green, and yellow, and many of the yellows and greens are regarded as equal in quality to any that the world produces. The limpid-yellow sapphires of Queensland, according to a noted Brisbane expert, combine the brilliancy of the diamond with the exquisite shades of rich golden yellow, with an occasional true orange color. The green sapphires have a remarkable range of color from the pale green through all the shades of bronze, olive, and russet, bordering closely on emerald, to the deepest green.

VARIETY OF GEMS FOUND.

The following list of gems found in Queensland, all of which have been authenticated, indicates that the State produces practically the entire catalogue of known precious stones:

Actinolite (cat's-eye).
Adamantine spar (corundum).
Adularia (moonstone).
Agate:

Eyed.
Fortification.
Banded.
Moss, etc.

Almandite (garnet).

Amethyst:
Quartz.
Sapphire.

Asteria:
Quartz.
Sapphire.

Aventurine (quartz).

Azurite.

Balas ruby (spinel).

Beryl:

Aquamarine.

Bloodstone (quartz).

Cacholong (quartz).

Callainite (turquoise).

Carbuncle (garnet).

Carnelian (quartz).

Cassiterite.

Ceylanite (spinel).

Chalcedony (quartz).

Chrysoberyl.

Chrysolite.

Chrysoprase.

Cinnamon stone (garnet).

Citrine (quartz).

Corundum:

Ruby.
Sapphire.
Oriental emerald.
Oriental peridot.
Oriental amethyst.
Oriental topaz.

Corundum—Continued.

Asteria or star stone.

White.

Adamantine spar.

Particolored, etc.

Diamond.

Emerald.

Fluor.

Garnet:

Grossularite.

Cinnamon stone or hyacinth.

Ptrose (ruby garnet).

Almandite (carbuncle).

Gold.

Gypsum.

Alabaster.

Satin spar.

Selenite.

Helliotrope-bloodstone.

Hyacinth (zircon, garnet).

Jacinth (zircon).

Jargoon (zircon).

Jade.

Jasper, various.

Lapis-lazuli.

Malachite.

Marble.

Mocha stone.

Moonstone.

Morlon (smoky quartz).

Obsidian.

Olivine.

Onyx.

Opal:

Precious or noble.

Harlequin.

Pin fire.

Flash fire.

Black, etc.

Cacholong.

In view of the variety and quality of Queensland gems, with especial reference to opals, there can be no question of the advisability of establishing trade relations between this State and the United States, if the American dealers find, as they unquestionably will, that the cost of direct importation will be less than buying through others. With a supply apparently limited only to the demand the Queensland fields should be drawn on by the American distributor for such gems as can be advantageously disposed of at home to the mutual benefit of the Australian exporters and the importers of the United States.

BRAZIL.

INCREASE IN DIAMOND OUTPUT—IMPROVED MINING METHODS.

Consul-General G. E. Anderson, of Rio de Janeiro, reports that there has been a considerable increase in the movement of diamonds from the Diamantina district of Brazil to the United States, although the vast bulk of the output continues to go to Paris and London. He adds further:

The establishment of a concern for cutting and finishing the stones at Diamantina has led to a change in the course of export, and the contract of one of the American mining concerns to purchase the output of other concerns at Diamantina is likely to lead to a still further increase in the American imports.

What the output of Brazilian diamond fields at the present time really is can not be given with any degree of certainty. Owing to the policy of the state government in its attempt to tax the stones on export no records of the finds or of the sales are kept. A private record kept by a diamond mine owner in Diamantina shows that in one district of that field over 4,800 carats of stones were bought from the original holders from September 14 to November 14, 1906. This period was probably an average one, and the output of this particular territory therefore will average about 2,400 carats of stones per month. There are two other similar mining fields in the same country, and while the output of the two combined will not exceed that of the first-named district, it seems very probable that the total output of the Diamantina country at present is about 5,000 carats a month, worth on an average perhaps something over \$40 per carat for mine-run stones in the rough. The income of the Diamantina district from its diamonds at the present time is about \$200,000 a month.

CRUDE METHODS TO BE SUPPLANTED.

This output of Diamantina diamonds seems to be altogether the production of mining with native means and methods from the so-called "serviços" which represent no faithful or effective test of the value of the country. These "serviços" are bands of workmen organized into effective squads, sometimes by a large number of workmen themselves agreeing to work together for a season and dividing the output and sometimes by men with capital enough to hire men for a season, taking the output for themselves. In the dry season the river beds are worked, in the rainy season the uplands are worked.

Rude sluices and wooden "pans" represent the machinery employed and there is no doubt that a large number of stones are missed in the process. Large numbers of stones are bought from Brazilians inhabiting the surrounding country, and there is no means at present of testing what mining property is worth or how much capital, time, labor, and expenditure the present output represents. Nor is there any means of telling how many people are actually engaged in whole or part time in the work.

The mining companies now installing plants in the Diamantina country are almost altogether American. Practically all of them are engaged in getting in their dredging machinery and preparing for active work on a more or less extensive scale. The trouble, expense, labor, and time necessary to accomplish even the more simple tasks in this line can only be fully appreciated by those who have engaged in the work. Diamantina can now be reached in two days by fast mule back from the end of the railroad, and in the course of a short time a public service of diligences will offer more improved means of making the journey, but the difficulty of transporting heavy machinery in such sections as a mule can carry over mountainous country is apparent.

STABILITY OF MINING COMPANIES.

In a report from this consulate-general under date of May 18, 1906, attention was called to the fact that several, if not many, so-called Brazilian diamond mining concerns selling stock in the United States were little more than frauds and that there was need of careful scrutiny, on the part of investors, of propositions dealing with gold and diamond mining enterprises in Brazil. The unusually large number of letters received following the publication of that report demonstrated that a good many investors had received the advice too late. It is only fair to the companies now prosecuting work at Diamantina in good faith, however, to call attention to the fact that they are working in good faith, in line with statements made in that report, and that because there have been some frauds in the business all the concerns are not to be included in that category. Companies which before were in more or less questionable position have made some effort and generally succeeded or probably will succeed in ridding themselves of undesirable elements. Without in any way or to any degree passing upon the merits of their property or their prospects it is probably safe to say that the companies now actually at work in the Diamantina country on the whole are going to give investors a fair run for their money. The necessity of investors giving attention to the former report, however, is none the less pressing.

The output of semiprecious stones in Brazil has increased considerably. Contrary to general opinion, these stones do not come, in general, from the diamond country. Of the \$90,000 or so of declared exports of semiprecious stones last year about four-fifths came from the port of Rio de Janeiro, coming generally from states farther south. Prices generally here seem to have no advantage for American importers over those for as fine or finer stones in western United States.

INDIA.

SAPPHIRE MINING IN KASHMIR.

In reporting that the interest in mining in India has extended to Kashmir, Consul-General W. H. Michael, of Calcutta, furnishes the following recent evidence:

A company composed of Europeans of excellent standing and well-to-do and respectable natives has been formed, and additional mineral lands to those already acquired by the company will be secured, and mining operations will be pushed vigorously. The company will pay particular attention to working the Kashmir sapphire mines and in working gold-bearing gravel in the Dras River in Baltistan. The company will be known as Kashmir Mineral Company (Limited).

GOLD PRODUCTION.

YUKON TERRITORY.

INDIVIDUAL MINERS BEING SUPERSEDED BY DREDGING COMPANIES.

The following information is supplied by Vice-Consul G. Carlton Woodward, of Dawson, concerning the change now taking place in the mining system in the Klondike, and the gold production of the region:

The Klondike country proper—that is, that portion of the Yukon Territory in the vicinity of Dawson, as far as the individual miner is concerned, is on a rapid decline; owing to the immense area of ground being acquired by dredging companies. One company alone has purchased nearly all of the placer ground on the three principal creeks, namely, Bonanza, Eldorado, and Hunker, and has bonded considerably more on Dominion and other creeks. This has practically depopulated these creeks for various reasons. Where formerly hundreds of miners were working for wages or working their own ground, thus creating a demand for provisions, clothing, machinery, hardware, etc., and the transportation from Dawson to the different mining operations, now dredges are either operating or in course of construction.

REDUCED NUMBER OF WORKMEN EMPLOYED.

An electrical dredge, capable of handling 3,000 cubic yards of earth per day of twenty-four hours, will only require about 13 men to handle, at an approximate cost for labor of \$100 per day. While this difference is not as yet felt by the laboring man in the Territory owing to the great amount of preparatory work under way by the different dredging companies and the construction of a railroad from Dawson to the various creeks, eventually it will make a difference in the amount of labor required. The present scale of wages for laboring men is \$4 per day and board, and from \$5 to \$7 and board for skilled mechanics, the board costing the companies \$2 per day. These are the wages paid by the large companies, but the wages around Dawson are probably a little higher.

This new method of mining, while it affects the individual placer mining in the Klondike district, has a tendency to cause the prospector and miner to look for new fields, both in the Yukon Territory and Alaska. It gives the small mine owner an opportunity of obtaining a fair price for a piece of ground which would hardly pay him to work by the old method of wood fire or steam thawing; and were it possible for him to work it by improved methods, his property is not of sufficient size to pay him to do this. It has also caused great activity in the locating of all ground open for staking in this vicinity that has not been heretofore thought of sufficient value to work, the locator only doing enough work to keep it represented until he has an opportunity to unload on one of the large companies. In this way entire creeks have been staked during the past two years.

[The following-named mining laws, copies of which accompanied Vice-Consul Woodward's report, can be consulted at the Bureau of Manufactures: Placer mining act; schedule of representation work of the Yukon mining code; and miner's lien law.]

MANGANESE IN INDIA.

RICH DEPOSITS—SHIPMENTS OF ORE FROM BOMBAY.

Consul E. H. Dennison reporting on the manganese ore industry of India, writes from Bombay, as follows:

. Just at present there is a veritable boom on in the manganese ore industry. Many discoveries are being made and the ore seems to be pretty well distributed throughout western and southern India. Some exceedingly rich deposits have been discovered 6 miles outside the Mysore frontier in the Bellary district, assaying an average of 54 per cent of metal. All the ore from Mysore and Goa is shipped from the port of Mormugoa, which possesses facilities for loading direct from the wharves. During the calendar year 1906, there were 343,346 tons of manganese ore shipped from the port of Bombay, as compared with 213,860 for the previous year. It is expected that the present year will see an enormous increase over these figures.

According to one of the largest shippers in Bombay, manganese ore mined in India varies from 40 to 53 per cent metallic manganese, silica 3 to 12 per cent, and phosphorus from 0.2 down to 0.03 per cent. The largest exporters from India sell their ore as 50 per cent metallic manganese, and sometimes as low as 45 per cent. It seems that no ore has yet been discovered which will assay anything like 85 per cent manganese peroxide.

The manganese ore industry is at present suffering from lack of proper transportation facilities. The mines are all situated off the lines of railways, and the ore is freighted in bullock carts to the nearest station. Owing to the general prosperity of the country, there has been an enormous shortage of freight cars on all lines and all industries, including that of manganese ore mining, have suffered thereby. There are thousands of tons of this ore piled up at various railroad points for which no cars can be obtained.

BRAZILIAN SAND.

DECREASED VALUE MAKES TAX ON THORIUM SHOW AN INCREASE.

Consul-General G. E. Anderson, of Rio de Janeiro, furnishes a report on the Brazilian tax on monazite sand, concerning which he writes:

The number of inquiries sent by American manufacturers interested in thorium products with respect to monazite sand in Brazil, and especially with respect to Brazilian tax upon exports of the sand, indicate some change in the business in the United States which may be affected by Brazilian conditions. Contrary to the impression which seems to exist in the United States, there has been no increase in the export tax on monazite in Brazil, although the practical effect of the course of the business in this country has been such as to lead to conditions amounting to an increase. The federal authorities continue to charge about 50 per cent on exports, or rather they allow the person handling the sand 50 per cent of the sale value, taking the balance. In Bahia the tax remains at 27 per cent ad valorem plus \$4.85 per ton specific export tax. In Espirito Santo the tax has been 20 per cent ad valorem plus £1 (\$4.86), £2, or £3 per ton specific duty, depending upon whether the exporter, a third person, or the Government owns the ground from which the sand is taken. The State legislative assembly of Espirito Santo has been debating the question of an increase in the tax imposed by that State, but as yet no action has been taken.

DECLINE IN QUALITY.

The quality of the deposits of monazite sand now being worked in Brazil is not so good as it was formerly. It is not so rich in thorium and is more difficult to secure. So long as the tax on the sand remains at the former figure, and while the percentage of thorium is decreased, there is in fact an actual increase in the tax on thorium, the valuable constituent of the sand. Taking the Brazilian fields as a whole this decrease of richness and corresponding increase of taxation has been considerable.

Exporters of the sand say that they can do no business in the United States because the present tariff of 6 cents per pound is, at 5 per cent of thorium, an actual tax of \$1.20 a pound and is practically prohibitive for them.

There seems to be a general feeling among those concerned that some material changes in Government regulations of the business in the valorization of coffee will be made. There was also considered a proposition for the Government monopoly of the monazite sand business. The failure of the coffee scheme, at least the very questionable nature of its results, has not given any further encouragement to the scheme for monopoly, but it is probable that this fact will in itself lead to new legislation and probably to less satisfactory conditions.

The exports of the sand from Brazil in 1906 were 4,351,600 kilos (kilo=2.2 pounds), valued at \$480,843, as compared with 4,437,290 kilos, valued at \$485,184, in 1905.

The World's Output of Aluminum.

Consul James A. Worman, of Three Rivers, Quebec, gives the world's output of aluminum at about 15,000 tons, of which, he says, the American concern located at Shawenegan Falls, Canada, supplies about 20 per cent. The consul adds:

The metal has been availed of in so many ways in recent years as to make it a precious one. The only method by which aluminum has been produced in any considerable quantity is by the Hall process of manufacture from the oxide, but an American inventor has produced a process for refining the metal by electrolysis which may bring about its wider use under more advantageous conditions.

Quarrying Granite for Mexican Port Works.

Vice-Consul R. M. Stadden furnishes the following description of the construction of the breakwater at Manzanillo by an American engineer who has a contract from the Mexican Government for harbor improvements:

The rock used in the breakwater is granite from a quarry 5 miles to the east of Manzanillo. The quarry is unusual in the formation and manner of working. On the side of the mountain there are beds of boulders, each boulder weighing 1,000 or more tons. The beds have no doubt been formed by the disintegrated rock being washed away, leaving on the surface of the ground these immense boulders. After working out the lower beds, or deposits, it became quite a problem to economically handle those higher up. The specifications of the rocks required are from 15 to 30 tons each; thus extra strong and heavy appliances are necessary for the execution of the work. A double-track incline railroad has been constructed up the side of the mountain, and two 50-ton derricks are used for loading. The laborers and engineers are all Mexicans, under the direction of an American superintendent. The average output of the quarry is 300 tons daily.

MISCELLANEOUS.

PARCELS POST.

FRANCE.

NEEDED FOR TRADE INTERCHANGE BETWEEN THE TWO REPUBLICS.

Writing from Nice, Vice-Consul A. Piatti, states that he considers it important to indicate that the establishment of a parcels post, such as exists between France and Great Britain, would be a very important factor in the creation of trade. He continues:

It would facilitate to a marked extent the sending of samples of many goods that would find an opening in this market, to say nothing of the creation of a semi-retail trade, such as now exists between France and Great Britain, and which certainly amounts to a very considerable sum per annum. Taking into consideration our American activity in advertising, the variety of our manufactures, and the keen competition existing among our manufacturers, I venture to predict that this branch of trade would, in a very few years, outstrip that done with the United Kingdom.

HOW MAIL PACKAGES ARE HANDLED.

Consul-General R. P. Skinner, of Marseille, also calls attention to the parcels post in France, writing:

It is unfortunate that, although the United States Government has parcels-post conventions with 29 different political divisions, including Germany, Norway, Belgium, and Great Britain, no such arrangement has been made with France. From this country, on the other hand, it is possible to send parcels to almost every country in the world except the United States, to weight varying from 6.61 to 11.02 pounds. Parcels for domestic delivery are similarly accepted upon the following terms:

Three kilos or 6.61 pounds, 12 or 17 cents, dependent upon delivery at railroad station or domicile; 6.61 to 11.02 pounds, 16 or 21 cents; 11.02 to 22.04 pounds, 25 or 30 cents.

Contrary to popular opinion in the United States, parcels sent by post in this manner are not deposited at the various post-offices, but are accepted at the railway stations, city railway offices, and offices of the subsidized steamship companies. The whole machinery is controlled by the different railroads and steamship lines, acting as agents for the State.

SWEDEN.

PARCELS POST BENEFICIAL FOR SMALL ORDERS—MONEY REMITTANCES.

Consul R. S. S. Bergh, of Gottenborg, advises that the direct exchange of post packages between the United States and Sweden, which commenced in the month of February, 1906, has lately increased considerably, since the parcel-post convention between the two countries has become more known, upon which he comments:

I hope that this cheap and convenient way of sending samples and articles of small bulk will, if found practicable in other respects, result in the United States getting a larger share of the trade in "small goods" which heretofore has mostly been in favor of certain other countries. But in order to gain this result I consider it necessary that American manufacturers and exporters, as far as practicable, pay attention to and execute small orders, particularly when the order concerns new articles not in this market before, or for the introduction of which no agent has been appointed here. However, it is an impediment and disadvantage that the packages may not be sealed and can not be insured. Thus, if a package worth \$40 or \$50 is lost, or part of its contents, the owner would get no reimbursement even if the package were registered. Here in Sweden post parcels must be sealed, may be registered or insured, and even sent C. O. D.

According to figures published here, the money coming from the United States to Sweden by post money orders during the year 1906 amounted to \$3,430,132, against \$2,805,219 during the year 1905. The aggregate amount sent in the same manner from Sweden to the United States was \$518,363, against \$491,486 in the year 1905.

HOLLAND.

POSTAL ARRANGEMENTS WITH THE UNITED STATES.

Consul Frank D. Hill makes the following report from Amsterdam on the mail facilities between the Netherlands and the United States, with a comment on packing:

A parcels post would facilitate trade. The Anglo-American Direct, Commercial, and Deutsche-Atlantische Telegraphen Gesellschaft (via Emden-Azores) cable companies have representatives: rates to New York, 62½ Dutch cents (\$0.25). Ordinary mail time from New York, nine days. Letters are received by the Hamburg-American and North-German Lloyd usually in seven days. The postal rates between Amsterdam and the United States are, on letters, 12½ Dutch cents (5 American cents) per one-half ounce, and on printed matter, 2½ Dutch cents (1 American cent) per 2 ounces. Overdue postage is a great evil, and constant complaints reach this office on that score.

During nearly eight years' service here I do not recollect of hearing any complaints as to packing, so that it may be adjudged to be satisfactory. On the contrary, it was a standard complaint in the South American centers where I formerly served.

TURKEY.

EXCESSIVE FREIGHT CHARGES ON SMALL PACKAGES.

Vice-Consul Isaiah Montesanto, of Trebizond, writes that American commercial progress might be greatly helped by the establishment of a parcels-post system between America and Turkey. He adds:

This would greatly facilitate small orders of sample goods, which are always the forerunners of commerce. The express companies may work well in other countries, but for some reason they do not work well here. Recently it took eight months for some stylographic pens to come by express from America to a port on the Black Sea. It caused considerable correspondence, anxiety, and displeasure to the party that had ordered and paid for them and discouragement to others who might think of ordering goods from America; also, on a small, light parcel, value \$6, from America to Trebizond, expressage to the amount of \$3.20 was charged.

Exporters should either refuse sample orders or send them freight prepaid and charge a reasonable percentage for freight independently of what they had to pay, and charge the surplus to their advertising expenses. A sample order of hardware, worth \$17.60, cost \$12.50 for freight, which was enough to kill the business at the start.

UNITED STATES.

COUNTRIES TO WHICH MAIL PACKAGES MAY NOW BE SENT.

Beginning with March 1, 1907, a parcels-post arrangement was put into effect between the United States and Ecuador, while it was established with Bermuda on February 1, 1907. Other countries with which the United States already had the parcels-post interchange were Jamaica, Barbados, the Bahamas, British Honduras, Mexico, the Leeward Islands, the Republic of Colombia, Salvador, Costa Rica, Danish West India Islands (St. Thomas, St. Croix, and St. John), British Guiana, the Windward Islands, Newfoundland, the Republic of Honduras, Trinidad (including the island of Tobago), Chile, Germany, Guatemala, Nicaragua, New Zealand, Venezuela, Bolivia, Hongkong, Japan, Norway, Belgium, Great Britain, the Commonwealth of Australia (including the States of New South Wales, Victoria, Queensland, South Australia, West Australia, and Tasmania), Sweden, Denmark, and Peru. The rates to these countries and the size packages permitted, etc., are given in the United States Official Postal Guide.

 New Canadian Postal Regulations.

Consul H. A. Conant, of Windsor, states that it will be of interest to American manufacturers and merchants who are sending catalogues and other advertising matter into Canada to know that under the new postal regulation, effective on May 8, 1907, the former rate of 1 cent a pound for bona fide newspapers, with a special rate for publications classed as advertising matter, is replaced by a uniform rate of a cent for 4 ounces, applying to all classes of publications.

TECHNICAL EDUCATION.

AUSTRIA.

INDUSTRIAL AND COMMERCIAL SCHOOLS.

Consul S. C. McFarland, of Reichenberg, supplements the recent article in Consular and Trade Reports on the technical educational movement in Austria by the following interesting report:

The number of technical or trade schools in the many varied lines of manufacture, and which are playing an important part in the development of Austrian industries, is constantly on the increase. The latest to be instituted is another school for the glass industry, and will be established at Toplitz, in this district, with government and district subventions. These technical or trade schools, largely supported by local and Federal authorities and encouraged by the manufacturing interests, teach the practical processes and improvements in different lines of manufacture, and their scholars generally step from graduation into practical positions requiring thorough technical training.

Technical or trade schools should not be confounded with the equally prevalent commercial schools teaching languages and business methods, with especial reference to the office conduct of international trade, and are open at nominal tuition to graduates from the gymnasiums or common schools between 14 and 20 years of age. For instance, the entrance to the Reichenberg weaving school is 80 cents; annual tuition, \$8; annual supplies, \$2. Foreigners are charged double rates. Many scholarships are provided and worthy pupils aided in various ways. These schools exist throughout Bohemia, covering every important line of manufacture. In this district alone are advanced schools for the higher branches of many trades—schools for weaving; knitting; jewelry, gold, bronze, and engraving; building and contracting; woodworking; modeling school for ceramic and allied trades; ceramic and allied arts; metal industry; glass industry, and spinning.

IMPROVED COMMERCIAL SCHOOLS.

The commercial schools, so called, should not be confounded with the common American commercial school or college. While stenography, bookkeeping, etc., are taught as in the American commercial schools, the curriculum of an Austrian commercial school comprehends all topics necessary for a student to familiarize himself with all or any particular foreign trade—language, business and social customs, money values, banking and commercial methods, economic conditions, etc. The impulse that such intensely practical education is giving to the international trade of Austria can hardly be overestimated, and partially explains, at least, with only cheap labor as an original asset, the wonderful development here in all lines of manufacture.

Not content with existing schools of this character, it is now proposed to crown the system with what might be called a University of Export, to be located at Vienna and organized to give the finishing touches to trade education. Not only this, but short-term special

classes are proposed, to which manufacturers and their employees are to be eligible for the study of special subjects, such as, for instance, Indian or Brazilian trade. A meeting of educational and industrial experts, including representatives of chambers of commerce and manufacturing associations, was held recently in Vienna, and the project seems assured. General opinion favors the private conduct of such a school, but national and local aid will be necessary.

GERMANY.

INSTRUCTION AND EXPERT ADVICE ARE GIVEN TO THE WINE TRADE.

Consul Henry H. Morgan, of Stuttgart, makes the following report on the Royal Wine School at Weinberg, in the Kingdom of Wurttemberg:

This school, with its two branches, one for the cultivation of the grapevine and fruit, and the other for the fermentation, treatment, and manufacture of the juice into wine, was established July 30, 1901. It has the following working rooms: Chemical laboratory, cultivation room, microscopical room, scale room, sterilizing room, office of the chief, and class rooms.

The wine school was established for the purpose of giving advice to wine growers in Wurttemberg and to give the students of the school a chance to become thoroughly familiar with the cultivation of the grapevine and with the fermentation, treatment, blending, etc. The wine school is under the supervision of the royal department of schools and also under the supervision of the department of agriculture. Wine lees are cultivated in large quantities and sold all over Germany. All kinds of wines which are not up to the standard are carefully examined, also diseased grapevines, and frequent lectures are held concerning their treatment. Expert advice is given as to how the wine is to be treated in the cellars. Special lecture courses are held regarding fermentation of wine, cultivation of wine lees, diseases of grapevines, chemistry of wines, and manufacture of the juice into wine.

Special lecture courses are held for chemists in the chemical and in the microscopical laboratories. All important questions arising in connection with the cultivation of grapevines and the manufacture and treatment of wine are treated in a scientific manner and frequent reports are issued concerning the observations and experiments of this school.

WATCHING FOR ADULTERATION.

By an act of the Department of the Interior of January 8, 1902, amended by an act of the same department of May 13, 1903, the wine school was authorized to appoint several official wine examiners. Each one of these official wine examiners has his own district, and it is his duty to ascertain who is selling wine in his district and to visit all wine merchants and other people selling wine in large or small quantities. If this wine examiner, who calls unexpectedly, finds that the wine is adulterated or is not up to the standard he fills a bottle of such suspicious wine, seals the bottle, and sends the same to the Royal Wine School at Weinsberg. There the wine is carefully examined, and if the experts of the school find that the wine is

adulterated the wine in possession of the wine merchant is confiscated and the offender is heavily fined. According to newspaper reports many thousands of gallons of adulterated wine have been destroyed and many thousands of marks have been paid by unscrupulous wine merchants detected in the adulteration of wine.

The staff of the wine school consists of the principal of the school, two chief assistants, and one subordinate assistant. The charges of the school for chemical and microscopical examinations of wines, etc., range from 23.8 cents to \$1.19.

In order to make practical tests of new grape vines, the school owns a large tract of land suitable for this purpose where it cultivates new grape vines. Frequent reports are published regarding such new grape vines in order to save the wine growers of Wurttemberg expensive experiments. Of course only such grape vines are selected for experiments which are suitable for cultivation in Wurttemberg.

This wine school has, I am informed, done a great deal of good in this country, and there are many foreign students in the school, including Americans. It would be of great advantage to our country if we had such schools in the State of California, Ohio, and New York, and a very large amount of money would probably remain in the United States which is now sent to foreign countries in payment of imported wines.

UNITED STATES.

ADVANTAGE OF TECHNICAL SCHOOLS.

A correspondent, writing from Utica, N. Y., calls attention to the large number of technical schools in Germany, under control of the Government, which, he says, accounts to a considerable degree for the large quantity of German knit goods imported into the United States and into nearly every other market in the world. He says Germany supplies a large quantity of high-grade goods which can not be made in the United States because of a lack of sufficiently qualified operatives. There are 83,387 knitting operatives in the United States, and yet they are without any means of improving themselves in their trade by instruction in a technical school. He also says that there is no handbook of knitting published by which operatives might increase their knowledge of knitting by self-instruction.

TANNERY SCHOOLS NEEDED.

Replying to an inquiry whether there are any tanning schools in the United States where a young man can take a course in the science and theory of the manufacture of leather, the *Hide and Leather Reporter* says:

There are no tanning schools in the United States. There is crying need for them, and some day a rich member of the shoe or leather trade will open his heart and do what ought to have been done many years ago. It is lamentable that if our young men wish to obtain a knowledge of the science and theory of the manufacture of leather they are compelled to seek this education in England or Continental Europe. There is not the slightest reason why a first-class tanning school should not be successfully established and amply supported in the United States.

LABOR QUESTIONS.

NEW ZEALAND.

ARBITRATION COURT FOR DISPUTES.

Special Agent Harry R. Burrill, in a report from Wellington, describes the operation of the Industrial and Conciliation Act of New Zealand. He writes:

The arbitration court of New Zealand is a tribunal created to arrange industrial relations and keep peace between employer and employed. The colony's Arbitration Law has been acclaimed as having made this "a country without strikes," and yet the slaughtermen of New Zealand have recently shown their discontent by adopting measures calculated to paralyze one of the leading industries of the country.

The Industrial Conciliation and Arbitration Act was first passed in 1894, and has been frequently amended in order, it is explained, to retain its flexibility and utility in face of new difficulties. It provides, generally speaking, for the proper registration of unions (both employers' and employees'), the regulation of industrial pursuits, the enforcement of industrial agreements, the establishment and the duties of boards of conciliation, the court of arbitration, awards, and punishments for violation of awards.

It also provides that when an industrial dispute arises the relationship of employer and employee must continue uninterrupted by anything of the nature of a strike or lockout. There must be no taking part in a strike or lockout or proposing, aiding, or abetting such proceedings. The status quo ante must remain unbroken, even though the time occupied in the preliminaries of reference, such as taking the vote of a union on the question of referring dispute to board or court, may be considerable. If default is made in any such particular the person concerned, whether union, association, employer, or worker, is liable to a fine not exceeding £100 in case of a union, association, or employer, and £10 in the case of a worker. The dismissal or suspension of a worker or discontinuance of work by a worker shall be deemed a default unless the party charged with such default satisfies the court that such dismissal or discontinuance of work was not on account of the dispute.

DISMISSAL OF EMPLOYEES.

It also provides that every employer who dismisses from his employment any worker by reason of the fact that the worker is a member of an industrial union, or who is conclusively proved to have dismissed such worker merely because he is entitled to the benefit of an award, order, or agreement, shall be deemed to have committed a breach of the award, order, or agreement. If, during the currency of an award, any employer, worker, industrial union or association, or any combination of employers takes proceedings with the intention to defeat any of the provisions of the award, every such employer, worker, union, association, and every member thereof, respectively, shall be deemed to have committed a breach of the award and be liable accordingly. No worker shall be subject to a fine merely

because he refuses to work at the rate of wages fixed by any award or industrial agreement, unless the court is satisfied that there was an intention to commit a breach of the act. A worker is deemed to be dismissed if suspended from work for a longer period than ten days.

The last provision is the one which the striking slaughtermen declare absolves them from blame, but the Government has taken a different view of the case and prosecutions have resulted. The employers insist that the argument of the workers that they did not strike but simply ceased work is merely a subterfuge, and that it is immaterial whether the outbreak constitutes a strike within the technical meaning of the term. They further insist that if the employers had declared for a reduction of wages, as the men did for an increase, and had refused to employ them except at a lower figure, they could not have fallen back on the excuse that they did not lock out the hands but merely ceased to employ them. They contend that such action would properly have been called a lockout, and for the same reasons and by the same reasoning the action of the men was a strike.

PUNISHMENT FOR ABETTING STRIKES.

Punishment for striking or abetting the strike is provided for by the law, but its practicability is open to grave doubt. The fine or imprisonment of the hundreds of men engaged in the strike may be recorded and the provisions of the law vindicated, but the effectiveness of such punishment is not quite so apparent. After the strikers have undergone the penalty there is no law compelling them to go back to work. By placing their late employer under the union ban it would be extremely difficult for him to resume business. He could not get the men. Therein, the employers contend, lies the one-sidedness of the act, and, moreover, if he break the law he must take the consequences. He can not change his business as his men can change their place of employment. His money is invested and he can at all times be found to answer for a violation of the law. The defects of the law, which was admittedly designed to prevent strikes and lockouts, are keenly deplored by both sides to the controversy, but it is useless to speculate on what additional legislation may be enacted to strengthen it, for a wide diversity of opinion exists as to the means necessary to make it effective.

STRIKE OF SLAUGHTERMEN.

The strike of the slaughtermen has caused general regret, as it temporarily embarrassed one of the greatest industries of New Zealand and created a feeling of additional uncertainty among the employers of labor that it is feared may check large investments of capital in new industrial enterprises. This strike hit New Zealand in a vulnerable part. Her prosperity has increased proportionately with the expansion of meat exports, and for several years New Zealand has steadily extended her pasturage and increased her sheep as the market opened wider. The industry of which slaughtering is an integral part has been a great factor in the development and prosperity of New Zealand, and she is now confronted by a crisis that threatens not only one of the splendid industries which the arbitration law was designed in part to protect, but imperils the law itself.

HOUSE SERVANTS' UNION.

In connection with the advanced position taken by labor in New Zealand it may be interesting to note the attitude of the domestic servants of that colony. A union has been formed which, through its secretary at Wellington, sent out circulars to housewives, informing them of the "claims" of the Domestic Workers' Union, and expressing the hope that their reasonableness would be acknowledged by signing the agreement accompanying the circular letter, which informs those concerned that "by so doing you will obviate the unpleasantness of appearing personally or by agent before the Conciliation Board or Arbitration Court." Following are among the "claims" set forth in a circular:

The week's work shall consist of sixty-eight hours, to be divided as follows: Work to commence every morning, except holidays, at 6.30 a. m., and cease on Mondays, Tuesdays, Fridays, and Saturdays at 7.30 p. m., with three intervals of one-half hour each for meals and one hour's interval in the afternoon of each day.

On Thursdays work shall cease at 2 p. m., with two intervals of one-half hour each for meals.

On Sundays work shall cease at 2 p. m., with two intervals of half an hour each for meals but domestics shall, if required, prepare tea between the hours of 5.30 p. m. and 6.30 p. m. on alternate Sundays.

On Wednesdays work shall cease at 10 p. m. with three intervals of half an hour each for meals and one hour interval in the afternoon.

On Sundays two hours shall be allowed to attend church in the morning.

Christmas Day, Boxing Day, New Year's Day, King's Birthday, Prince of Wales' Birthday, Anniversary Day, Easter Monday, Labor Day, and all statutory holidays shall be deemed to be holidays, and work done on those days shall be paid for at the rate of 1 shilling (24 cents) per hour.

Domestics shall be in every evening at 10 p. m., except Thursday, and on that night at 12 p. m.

FRANCE.

INCREASED EMPLOYMENT OF FEMALE LABOR.

Writing from Lyon, Consul J. C. Covert states that the appearance of women at the carriage stands in Paris as drivers has given rise to some discussion on the increased employment of women in different branches of industry in France since the introduction of steam in factories. He says further:

It is noted that every step in the progress of the use of steam in industry has opened new employment for women and children. In the Departments of the Pas de Calais and Aisne 50,000 persons are employed in the tulle factories, and two-thirds of them are women and girls. Over half the persons employed in the weaving and throwing of silk are women and children. The employment of all these women and children has driven men out of the business on account of the reduction of wages and has materially deteriorated the artistic character of the silk. It is stated that for every 100 men employed in the cotton mills of France there are 58 women and girls, in the woolen mills 69, and in the silk mills 71.

Of the 37,730,000 population of France, statistics record a working population of 19,750,075, of whom 6,805,510 are women and girls. The number engaged in agricultural pursuits is 8,176,569, of whom

2,658,952 are women. Of the 1,822,620 people engaged in commerce, 689,999 are women, and of the 1,015,039 people employed in domestic pursuits 791,176 are females. Those engaged in industrial pursuits furnish employment to 5,819,855 people, of whom 2,124,642 are women. The percentage of females employed in four branches of labor is: Agriculture, 28; commerce, 35; domestic pursuits, 77, and learned professions, 33.

AUSTRIA.

WAGES IN CARLSBAD.

Consul J. S. Twells writes that the district court of administration at Carlsbad, Austria, has fixed the usual rate of daily wages for laborers who are subject to State insurance for sickness and accidents, as follows:

Males: Foremen, 60 cents per day; others, 40 cents, and apprentices and boys, 20 cents. Females: Women, 28 cents, and juveniles, 18 cents. Servants of the State, 48 cents, except servants of the post and telegraph, who receive 44 cents. The order is to remain in force during 1907, 1908, and 1909. The laborers mostly live in the surrounding villages. They pay from \$10 to \$20 a year for rent, and from 15 to 21 cents a day for subsistence.

MUSICAL INSTRUMENTS.

GERMANY.

AN IMPORTANT INDUSTRY IN THE EMPIRE—IMPORTS AND EXPORTS.

Consul-General A. M. Thackara, of Berlin, responding to several inquiries from the United States in regard to musical instruments in Germany, says, in part:

The manufacture of musical instruments is an important German industry, there being, in 1903, 465 piano factories, many of them small concerns. There were 30 factories making piano mechanism, 50 producing keyboards, and 25 smaller concerns making and covering hammers. Besides there were 280 factories which make special parts used by the piano makers, such as cast-steel springs, wires, felt, plates, etc.

The imports of pianos in 1900 amounted to \$47,100; in 1905, \$114,700. The exports of pianos rose from \$6,525,200 in 1900 to \$8,454,700 in 1905. The principal countries to which pianos were sent in the latter year were: Great Britain, \$3,165,400 worth; Australia, \$1,118,600; Argentina, \$428,400; Italy, \$285,600; Brazil, \$142,800; and Finland, \$71,400.

In 1903 there were 275 factories for the manufacture of church organs, most of which were small concerns, working only for the home trade. The imports of organs and harmoniums into Germany in 1900 were valued at \$87,000; in 1905, \$98,500. The exports amounted to \$318,900 and \$433,200, respectively. The manufacture of stringed instruments and strings is chiefly carried on in small factories. Bows

are made in Markneukirchen and its environs, also guitars, mandolins, zithers, banjos, and like instruments.

DRAWBACKS TO AMERICAN SALES—IMPORT DUTIES.

Very few American pianos are imported into Germany, and these only of the higher grade, nor is an increased trade probable until the existing objections to the American-made instruments have been removed, which are: A too high retail price as compared with the German-made instruments; case design and finish unsuitable for the German market, and a different standard as to the character of tone. As to low-grade pianos there is almost no chance of establishing an outlet in Germany for the American, as the Germans consider their low-grade pianos just as good, and besides the prices are considerably lower. A piano made near Leipzig sells at wholesale for \$63, with which a five-year guaranty is given.

There is still quite a trade in American parlor organs and harmoniums with Germany, but the imports are not increasing as rapidly as formerly. American talking machines of the higher grade are well represented in Germany and, owing to their unsurpassed excellence, enjoy a profitable trade. There would be little chance for inferior grades, as thousands of cheap machines, made in Germany, are sent annually to the United States.

The duties on musical instruments imported into Germany from the United States, per 220 pounds, are as follows: Phonographs, gramophones, etc., \$9.52; organs, with pipes, \$4.76; harmoniums, \$9.52; pianos, all kinds, \$9.52; piano mechanism and keyboards, \$13.09; stringed instruments to be played by hand or bow, wind instruments, and concertinas, each, \$4.76. To obtain a foothold in the German market for American pianos, harmoniums, and organs it would require an intelligent and businesslike campaign. Competition in the German musical trade is too keen to expect any satisfactory results from catalogues or from correspondence.

INCREASED SALE TO THE UNITED STATES.

Consul Carl Bailey Hurst, in the following report from Plauen, shows how a German town is increasing its American trade in musical goods:

The exports of musical instruments, declared at the consular agency at Markneukirchen, under this consulate, show an increase of \$48,726, in contradistinction to a decrease of \$8,215 during the first three months of 1906. The principal gains were in accordions, concertinas, bows, harmonicas, strings, and violins. The export in motor horns, which, during the March quarter of 1906, was \$1,425, dropped in 1907 to \$200. The total declared exports of the Markneukirchen agency during the first quarter of 1907 were \$200,578, while the declared exports for the similar period of 1906 were \$151,851.

WALES.

A MUSICAL PEOPLE AND THEIR PURCHASE OF INSTRUMENTS.

Consul D. W. Williams, of Cardiff, writes that the Welsh have been noted for their love of music for more than ten centuries and

that no people in the world can now boast of as large a proportion of good singers among all classes, including the laborers. Concerning the trade in musical instruments he says:

They have an institution named the *Eisteddfod*, devoted to competitions in music, as well as literature and the arts, and annual sessions are held in each neighborhood, and a national session of five days at some important town in the principality, alternating between North and South Wales. Until this century the poverty of the masses prevented them from buying the more expensive musical instruments, but the great expansion of the mining industry is building up rapidly a well-to-do upper class of miners, shoppers, artisans, and professional men. Representative men in the last-named class have sprung into great prominence from the greatest obscurity. This industrial prosperity is opening the way for a growing trade in musical instruments, and already there is a good market for the cheaper grades of pianos and organs, even among the miners.

The prevailing method of selling is the "hire-purchase" system. The buyer can secure a piano and pay for it in 12, 24, or 36 monthly payments or on special terms even more accommodating. Under this system an \$80 piano costs the buyer \$105 and proportionally on up. Such a system makes the piano trade in Wales a business that must be carefully watched, and of necessity the higher-grade pianos costing more than \$300 find comparatively little sale. Several of the dealers in Cardiff, which is the largest city and best business center in Wales, imported American pianos in the past, but they have now practically ceased to import them, and the agencies for high grades have been surrendered. A Chicago piano retailing at \$300 finds a sale occasionally, but only the upper middle class and the gentry go beyond that price, and such orders are usually filled in London.

TRADE DIFFICULTIES.

The failure of the American pianos to win a foothold in Wales is not due to any lack of merit, for all dealers concede their high quality. The causes operating against them are the following:

Prices.—As already indicated, \$300 is practically the limit, and the Welsh buyers, while demanding tone and quality, are economical and thrifty and prefer cheap finish and woodwork.

Sizes.—The average Welsh cottage limits the size of piano, and the lower and more compact styles seem to be preferred. Perhaps 4 feet 1 inch is about the limit for a good seller.

Climate.—American pianos fail to meet the requirements of the climate, and this is true of all the United Kingdom. This seagirt land has a very moist atmosphere, with about 250 cloudy days in the year, and the brightest days are seldom as dry as they are in America. Added to this is the peculiar custom of the people to economize on fuel. All winter long many a cottage seldom has more than one fire, and even among the well-to-do househeating as practiced in America is practically unknown here.

German competition.—German manufacturers have studied the market by asking for plans and prices and manufacturing an instrument to suit the local taste and demand, and the German article—a good overstrung instrument—can be profitably sold for \$145.

American manufacturers in this line, as well as all others, should send experts to study the British market in order to manu-

facture the article that will meet the local demand, instead of wasting money in foisting American styles upon a people naturally conservative and not altogether complacent when another people assume superiority. [A list of the piano dealers at Cardiff is on file at the Bureau of Manufactures.]

NEW ZEALAND.

PURCHASES OF MUSICAL GOODS.

Consul-General W. A. Prickett writes from Auckland that the imports of musical instruments into New Zealand during 1905 amounted to \$632,225, divided as follows: Pianos, \$505,455; organs and harmoniums, \$28,665; and all others, including materials, \$98,115. Of these instruments, Germany furnished \$245,735 worth; the United Kingdom, \$359,250; the United States, \$27,240. The tariff duty is 30 per cent ad valorem for all countries but the United Kingdom and the British possessions, which is 20 per cent.

CEMENT TRADE.

BRAZIL.

GERMANY HAS ADVANTAGE OF LOWER PRICES AND FREIGHT RATES.

Consul A. R. Morawetz reports as follows on the purchases of cement at Bahia:

The imports of Portland cement at Bahia in 1905 were 20,000 barrels. There was an increased import in 1906 and should be a greater one in 1907. It is imported almost exclusively from Germany and Belgium in equal amounts, England and the United States supplying only a small fraction of the quantity consumed. The prices paid in Germany and Belgium are practically the same, although the cement from the latter country is considered a trifle better in quality. The first cost in both these countries is lower than in the United States, but the quality of American cement is better than either the German or Belgian product. The sale of an article here depends much more on the price than on the quality, and for this reason there is a larger quantity of German cement sold than any other kind. It has the further advantage that freight rates are lower from Germany than from any other country, and also that its credit arrangements are more favorable than can be obtained from American manufacturers. There is no concrete used in the construction of buildings, and cement bricks are unknown here.

The selling price of German cement is from \$3.36 to \$3.66, and of Belgian from \$3.97 to \$4.27 per barrel, at the present rate of exchange of 3.275 milreis to the dollar. The duty at this rate is now \$1.50 per barrel of 375 pounds net. Cement is always imported in barrels, which are not included in the weight when the appraisalment for duty is made.

The only lines of steamers from the United States to this port sail from New York, and none of the agents here could give me the freight rate on cement, but informed me that this rate could be obtained at the port of shipment.

If the difficulties regarding first cost, freight rates, and credit arrangements can be overcome, I believe there is a field here for the sale of American cement, as it has given satisfaction to all who have ever used it. There are no architects or contractors for the construction of buildings here as in the United States, material being always furnished by those for whom the work is done. [A list of cement dealers at Bahia is on file at the Bureau of Manufactures.]

SANTO DOMINGO.

AMERICAN QUALITY SAID NOT TO BE SO GOOD.

Consul W. H. Gale makes the following report from Puerto Plata on the cement trade of Santo Domingo:

American cement is commonly referred to here as "cemento falsificado" (spurious cement), and German cement, which is more expensive, as "cemento legitimo" (legitimate cement). This tells the whole story of the relatively small importations of American cement. If American dealers will furnish better cement, equal in quality to that imported from Germany, and will properly advertise and push the same by means of literature in the Spanish language or, better still, by sending to this country a Spanish-speaking representative, there is every reason to believe that they would soon command this market.

BARBADOS.

GOVERNMENT PACKING REQUIREMENTS.

The imports of cement into the island of Barbados last year is stated by Consul A. J. Clare, of Bridgetown, to have been 5,071 barrels, against 7,188 in 1905. The United States, which supplied 300 barrels in 1905, furnished but 1 last year, while Great Britain sold 6,588 and 4,870 barrels, respectively. A London brand is most popular, selling at \$3 to \$3.25 per barrel of 400 pounds gross weight. The local government when importing it requires that cement barrels shall have four corrugated iron hoops, and the joints grooved and tongued. The duty is 30 per cent, with a surtax of 20 per cent, while the freight rate is 45 cents per barrel from New York to Barbados. There is no reason why American Portland cement could not be sold on the island. [Names of dealers are on file at the Bureau of Manufactures.]

SALT PRODUCTION.

MEXICO.

PRIMITIVE AND SIMPLE METHOD OF EXTRACTION.

Vice-Consul R. M. Stadden reports on the production of salt in the district of Manzanillo, the following being the methods:

The manner of extracting the salt from the many shallow lagoons along this coast is primitive and simple. At a convenient place, gen-

erally at high-water mark, the following is constructed: On top of four strong posts, placed upright and protruding out of the ground about 6 feet, a flat covering is built of poles; on top of these about a 3-foot thickness of dry grass or straw is placed. When completed it is a flat-roofed shed, with straw covering. This is to serve as the filter. Underneath this a receiving bowl is made of stone and lime mortar. At one side of the filter and bowl the evaporating pans are made of lime mortar, being shallow tanks not over 6 inches deep and divided into squares of about 150 superficial feet each. This completes the salt works. A layer of earth one-fourth to one-half inch is then scraped daily from the exposed land that was covered with water when the lagoon was full in the wet season. This earth is carried in baskets on men's heads to the top of the filter and emptied onto the straw roof. Water is then filtered through the earth and straw, and falls into the receiving bowl highly charged with salt. The liquid is passed to the evaporating pans, this being done with earthen jars. The sun evaporates the water and leaves the pure salt, which is piled up in the sun to dry. It is then packed in bags and conveyed by mules to the market.

The cost of making this salt is about \$3.50 United States gold per ton, and it sells for at least twice that much, even when the prices are lowest. It is considered the best of the Republic, and commands the highest price. About 15,000 tons are now produced each year during the three months' season. With machinery much more could be made, and no doubt at much less cost. There is a ready market for many times the quantity now produced. [The names of the owners of the salt lands are on file at the Bureau of Manufactures.]

TURKS ISLANDS.

SUPPLY EXCEEDS THE DEMAND.

Consul J. A. Howells reports that the current salt raking season on the West Indian islands of Grand Turks, Salt Cay, and East or Cockburn Harbor, Caicos Islands, began unusually early in the year, with the result that up to May 1 there was fully 250,000 bushels gathered and in some cases piled on top of the raking or crop of 1906. There are now in the colony fully 1,000,000 bushels or more of salt, and the salt rakers are anxiously waiting for buyers. Up to this time there has been some "fishery" or ground salt shipped to Nova Scotia, but only one cargo to the United States.

ESSENTIAL OILS.

INDIA'S PRODUCTION AND EXPORTS—EGYPT THE BEST CUSTOMER.

Consul-General W. H. Michael writes from Calcutta on the exports from India of essential oils as follows:

The annual exports of rusa-grass oil from India during the decade, 1896-97 to 1906-7, increased from 6,199 gallons to 23,436 gallons, and in value from \$49,651 to \$183,808. It is understood in India that

Indian oils are manipulated in both Germany and France in such a way as to make their most popular perfumes, for which fancy prices are realized.

The Indian geranium oil of late years has been put on the market unadulterated with oil from grasses, and commands better prices than it did when adulterated with oily products. There is a demand for all this class of oil produced in India by the manufacturers of perfumes and fancy soaps. The price last year for geraniol was the lowest yet realized, but the producers were satisfied with the net results and are preparing to increase the production by greater acreage, by improved methods of cultivation and harvesting, and by using more modern apparatus in distilling the oil.

LEMON GRASS AND CITRONELLA OILS.

The lemon-grass oil, made from what is usually called *Andropogon citratus*, while allied to rusa grass, is quite distinct from it in its chemical composition. It has a lemonlike odor and taste and readily dissolves in 70 per cent alcohol. This oil is made in southern India during the time of year when the grass is sufficiently green and juicy to render it profitable to work. The larger portion of the oil is used in the manufacture of citral and ionone, which is an artificial violet perfume. The most delicate violet perfume is made from it, and considering the cheapness of the base of the perfume, is sold in American markets at an exorbitant price. The effect of this has been to run up prices in India, but they are not likely to go much higher.

Citronella oil is distilled from grass grown in Ceylon, with an estimated 60,000 acres now in cultivation. Two crops are grown in a year, and the harvests occur in July or August and in December. The average yield of oil to the acre of grass is from 368 to 460 ounces in the summer and about half that in winter. The record year of exports was 1899, when they amounted to 1,500,000 pounds. It is inferior to the lemon-grass oil, and has been used in adulterating the latter in foreign laboratories.

A supply of Indian lemon-grass roots and seeds will be sent to the Agricultural Department at Washington, which is already interested in experimentation with essential oil grasses.

GUM ARABIC.

EGYPT'S EXPORT OF THE ARTICLE—DECLINE IN PRICE.

Gum arabic, which forms one of the more important minor exports of Egypt, is really the sap from a special kind of tree, which grows from 3 to 5 yards in height, whole forests of which are found in the Kordofan province, and also near Gedid, in the White Nile province. The natives are free to collect the gum, the only tax being a royalty levied at Omdurman. This royalty, which last year was about p. t. 12 (61 cents) a cantar (99 pounds), varies according to the market price of the gum, and is fixed annually by the Sudan government.

The seasons during which the trees yield their sap, according to the Journal of the British Chamber of Commerce in Egypt, in which these notes appeared, runs from December to May. Prior to gather-

ing the "crop," the natives prepare the trees by slightly cutting the bark in numerous places. The sap then exudes, solidifies in the shape of large and small lumps, and is afterwards gathered by hand, such gathering being done before the rainy season commences.

There are two main classes of gum, viz, ambery and bleached. In the latter case the gum is merely exposed to the strong action of the sun—generally in Omdurman—while in the former instance it is allowed to retain its natural amber color.

The confectionery trade is perhaps the principal purchaser of gum arabic, though a very large number of other industries, e. g., chemical works, printing and dyeing mills, letterpress printers, and so on, are interested in this product of the Sudan.

At the present moment the Sudan article experiences great competition from the Senegal gum, while in certain trades we understand that dextrine—a substance manufactured from the starch extracted from the potato—replaces gum when the price of the latter is too high.

The Journal also observes that the selling price of gum arabic during the past six years shows a heavy decline. In 1901 the average price per kilogram was nearly 38 millièmes (17½ cents), while last year this figure dropped to 20 millièmes (10 cents). The yield, too, in 1906 was the lowest since 1901.

Java's Coffee Crop Reduced.

According to a recent telegram to The Hague Government from the governor-general of Netherlands-India, the Government's Java coffee crop for this year is estimated at 39,000 piculs (picul=133½ pounds). In the colonial budget this crop was estimated by the minister at 125,100 piculs, but at the end of January last the minister was advised that the estimate had to be revised and to be reduced by 86,000 piculs. The reports from private estates are also very disappointing, and the exports of Java coffee generally promise to be very small this year. It is not yet known whether the Government will reduce the number of auctions or whether a smaller quantity will be offered at each sale. At all events, the reduction of revenue, calculated at 3.3 florins (florin=40.2 cents) per picul, will amount to about 280,000 florins.

Peanut Cultivation in Spain.

Replying to an inquiry from the United States regarding the cultivation of peanuts in the district of Valencia, Spain, Consul H. A. Johnson writes:

The area devoted to the cultivation of peanuts in this district in normal years is about 14,500 acres, giving an average yield of a short ton (2,000 pounds) to the acre. Peanuts are usually planted as a second crop after early wheat or green foodstuffs, and are generally sown in July and harvested in November. Farmers do not consider the crop profitable for high-class soils if spot prices fall below \$40 per ton. Exports of peanuts from Valencia and subports average about

4,500 tons annually, and the importing countries, in the order of importance, are Holland, Great Britain, Algiers, France, and Italy. Peanuts are not imported in this section of Spain, but peanut oil is sometimes shipped from Java and Mozambique, especially in years of shortage in the Spanish olive crop, the oil being used to substitute olive oil for cooking purposes.

Brazilian Rice and Fiber Concession.

The Brazilian Review states that a contract has been signed by the government of the State of Minas Geraes with the Empire Fiber Company of North America, whose capital is \$350,000, for the planting and exploitation of pita and rice by American methods. The government grants the land, while the company establishes a school where 10 pupils are to be taught each year the technicalities of the business. If within four years 1,000,000 plants of pita are not growing or if within one year machinery has not been installed for the preparation of the products, the land will revert to the State, with all improvements made, without the government having to pay any indemnity.

French Inspection of Alimentary Goods.

According to the London Times, the French Government has taken severe measures to assure the application of the new law against frauds in the alimentary trades. The service of repression is now completely organized. The prefects have received their instructions, 21 laboratories are ready for analysis work, and experts have been nominated to advise as to prosecutions and grounds for conviction. Nine more laboratories will shortly be added. In short, the State is now sufficiently armed to cope with adulteration.

CONSULAR FEES.

RATES PRESCRIBED BY THE PRESIDENT.

Following is the tariff of fees prescribed by the President, under the act for the reorganization of the consular service, to be charged by consular officers of the United States. All consular charges must be in strict accordance with and be collected in gold or its equivalent, and no fee or compensation will be collected for any service not covered by this tariff. American vessels and seamen are exempted by law from the payment of consular fees. Foreign-built vessels, unregistered, owned by American citizens, are not exempt from the payment of the prescribed fees.

Nature of service.	Fee.
<i>Miscellaneous services.</i>	
1. Certificate to invoice, including declaration, in triplicate or quadruplicate, covering either importations or transit shipments, including any additional declaration or certificate not otherwise provided for which is required by law or regulations for use in connection with the entry of the wares or the forwarding of the same in bond	\$2.50
2. Invoice of returned American goods	1.00
3. Extra certificates or declarations as above described, including immigrant's oath (Form No. 128), when issued without an invoice certificate, each	1.00
4. Certificate to extra copies of invoices, each	1.00
5. Certificate of disinfection, in triplicate or quadruplicate	2.50
6. Landing certificate, including oaths of master and mate, and the complete execution of the certificate	2.50
7. Sealing cars coming from Canada or Mexico, for each manifest in quadruplicate with the consul's certificate, including sealing of each car, vessel, bale, barrel, box, or package	1.00
8. Issuing a passport—Form No. 9	1.00
9. Visiting a passport—Form No. 10	1.00
10. Visiting a Chinese passport or certificate	1.00
11. Marriage certificate, in duplicate, Form No. 87	1.00
12. For taking into possession the personal estate of any citizen who shall die within the limits of a consulate, inventorying, selling, and finally settling and preparing or transmitting, according to law, the balance due thereon, \$2 for each \$100 of value or fraction thereof. If part of such estate shall be delivered over before final settlement, \$1 for each \$100 of value or fraction thereof to be charged on the part so delivered over as is not in money, and \$2 for each \$100 of value or fraction thereof on the gross amount of the residue. If among the effects of the deceased are found certificates of foreign stock, loans, or other property, \$1 for each \$100 of value or fraction thereof on the amount thereof. No charge will be made for placing the official seal upon the personal property or effects of such deceased citizen, or for breaking or removing the seals.	
13. For each certificate of protection, seamar, or certificate of employment issued at Tangier	2.00
<i>Services to vessels and seamen.</i>	
14. Bill of health, in duplicate ^a	5.00
15. Supplemental bill of health, in duplicate ^a	2.50
16. For receiving and delivering ship's register and papers, including consular certificates, as prescribed in Form Nos. 13 and 14, \$1 for each 100 tons or fraction thereof, registered measurement (net), of the vessel for which the service is performed, if under 1,000 tons; but for American vessels running regularly by weekly or monthly trips, or otherwise, to or between foreign ports, this tonnage fee will not be charged for more than four trips in a year; and tonnage fees shall not be exacted for any vessel touching at or near ports in Canada on her regular voyage from one port to another within the United States, unless some official service required by law shall be performed.	

^a Foreign war vessels are exempt from the payment of fees for bills of health.

Nature of service.	Fee.
<i>Services to vessels and seamen—Continued.</i>	
17. And for every additional 100 tons net or fraction thereof	\$0.50
18. Shipping or discharging seamen, including the certificates thereof attached to crew list and shipping articles and given to seamen	2.00
19. Authentication of copies of protests or other necessary documents for vessels or seamen not otherwise provided for	2.00
20. Preparation and acknowledgment for vessels or seamen of any oath or declaration for which a form is given in the Consular Regulations, or a similar necessary service not otherwise provided for	2.00
21. Preparation and execution for vessels or seamen of any certificate for which a form is given in the Consular Regulations, or similar necessary service not otherwise provided for	2.00
22. Orders or letters for vessels or seamen for which forms are given in the Consular Regulations, or other similar necessary service not otherwise provided for	2.00
23. Recording, when necessary, for vessels or seamen any document covered by the provisions of the Consular Regulations, for every hundred words or fraction thereof .....	.50
24. Noting marine protest—Form No. 37	2.00
25. Extending marine protest—Form No. 38	3.00
If it exceed two hundred words, for every additional one hundred words .....	.50
26. Protest of master against charterers or freighters—Form No. 39	2.00
27. Clearance when issued by the consul, as at free ports	2.00
28. Attending an appraisement of vessel's goods or effects for each day's attendance	5.00
29. Attending sale of vessel's goods, for each day's attendance during which the sale continues	5.00
30. Attendance at a shipwreck, or for the purpose of assisting a ship in distress, or of saving wrecked goods or property, over and above traveling expenses, whenever the consul's interposition is required by the parties interested, for each day	5.00
<i>Notarial and other services.</i>	
31. Administering an oath and certificate thereof	2.00
32. Administering oath and preparing passport application	1.00
33. Acknowledgment of a deed or power of attorney, or similar service, including one or more signatures, with certificate thereof	2.00
34. Administering any and all oaths required to be made by pensioners and their witnesses in the execution of their pension vouchers, or certifying to the competency of a local official before whom the same were executed	No fee.
35. Acknowledgments connected with the transfer of United States bonds	No fee.
36. Administering oaths to or taking acknowledgments of officials or employees of the United States Government in connection with their official business or accounts	No fee.
37. For rendering notarial services to officials of foreign governments who render gratuitously reciprocal courtesies to American diplomatic and consular officers	No fee.
38. Certifying to official character of a foreign notary or other official	2.00
39. For taking depositions, executing commissions or letters rogatory, where the record of testimony, including caption and certificate, does not exceed 500 words	10.00
For each additional 100 words or fraction thereof .....	.50
The foregoing fee shall cover the administration of the oath and all services of the consul as commissioner, but shall not include services of clerk, stenographer, or typewriter, which shall be additional at the rate prescribed herein for copying.	
40. Copies:	
For the first hundred words or fraction .....	.50
For every additional hundred words or less .....	.25
41. Translations; for every one hundred words or fraction .....	.50
42. Additional fee for all services contemplated by fees numbered 31, 32, 33, 38, 39, when rendered elsewhere than at the consular office at the request of the interested parties, for each hour or fraction thereof	1.00
In connection with any service rendered outside of the consular office at the request of private individuals, the exact amount of the expenses actually and necessarily incurred by the person rendering the service shall be collected from the persons for whom the service is performed in addition to the fee or fees prescribed therefor, and a note of the amount shall be made on the margin of the fee book and fee return opposite the entry of the service and fee; but no amount in excess of the fee or fees prescribed and such actual and necessary expenses shall be charged or accepted.	

^a Executive order of December 21, 1906, prescribes that no fee shall be charged for the affidavit of temporary stay of owner of sealskin garment entering the United States from Canada.

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CONSULAR AND TRADE PUBLICATIONS.

The publications made up chiefly of reports from United States consular officers in foreign countries include the following:

COMMERCIAL RELATIONS, being the annual reports of consular officers on the commerce, industries, navigation, etc., of their districts.

REVIEW OF WORLD'S COMMERCE, being a summary of the annual reports contained in **COMMERCIAL RELATIONS**.

DAILY CONSULAR AND TRADE REPORTS, issued daily, except Sundays and legal holidays, mailed gratuitously to commercial and industrial organizations, manufacturers, exporters, and the press.

MONTHLY CONSULAR AND TRADE REPORTS, compiled from the daily, and issued every month with index.

SPECIAL CONSULAR REPORTS, on particular subjects, made in pursuance to instructions from the Departments of State and of Commerce and Labor.

Until July, 1903, all Consular Reports were issued by the Bureau of Foreign Commerce of the Department of State; from that date until June, 1905, they were issued by the Bureau of Statistics of the Department of Commerce and Labor, with which the Bureau of Foreign Commerce of the Department of State was consolidated July 1, 1903; since July 1, 1905, they have been issued by the Bureau of Manufactures, Department of Commerce and Labor. For details of these publications, and the reports remaining for distribution, address "Chief, Bureau of Manufactures, Department of Commerce and Labor, Washington, D. C."

The publication of reports on specific subjects, in separate form, was begun in 1890. The editions of many of them are exhausted. The following titles are available for distribution:

Vol. 20 (1900).—Part I. Book Cloth in Foreign Countries; Market for Foreign-Made Clothing in Latin America; Foreign Imports of American Tobacco; Cigar and Cigarette Industry in Latin America.

Vol. 23 (1901).—Part I. Gas and Oil Engines.

Vol. 24 (1902).—Creameries in Foreign Countries.

Vol. 25 (1902).—Stored Goods as Collateral for Loans.

Vol. 26 (1903).—Briquettes as Fuel in Foreign Countries.

Vol. 27 (1903).—Markets for Agricultural Implements and Vehicles.

Vol. 30 (1904).—Emigration to the United States.

Vol. 32 (1904).—Foreign Markets for American Fruits.

A few copies of reports made by special agents on trade conditions in the countries visited by them are also available, as follows:

Brazil.

China.

Cuba.

Egypt.

India.

Japan and Korea.

Mexico.

"Trade with China" is a pamphlet of 110 pages, illustrated, with an introductory chapter on Packing. It is compiled from reports made by special agents which were printed in Daily and Monthly Consular and Trade Reports. A few copies are available.

Of the **MONTHLY CONSULAR REPORTS**, many numbers are exhausted or so reduced that the Department is unable to accede to requests for copies. Of the publications available for distribution, copies are mailed to applicants without charge. In view of the scarcity of certain numbers, the Department will be grateful for the return of any copies of the Monthly or special reports which recipients do not care to retain. Upon notification of willingness to return such copies, franking labels to be used in lieu of postage in the United States, the Philippine Islands, Hawaii, and Porto Rico will be forwarded.

Persons receiving **CONSULAR REPORTS** regularly, who change their addresses, should give the old as well as the new address in notifying the Bureau of the fact.

All communications relating to **CONSULAR REPORTS** should be addressed, "Chief, Bureau of Manufactures, Department of Commerce and Labor, Washington, D. C."

DEPARTMENT OF COMMERCE AND LABOR
BUREAU OF MANUFACTURES

MONTHLY
CONSULAR AND TRADE
REPORTS

AUGUST, 1907

No. 323



WASHINGTON
GOVERNMENT PRINTING OFFICE
1907

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MONTHLY CONSULAR *and* TRADE REPORTS

Washington, D. C.

AUGUST, 1907

No. 323

EUROPE.

KINGDOM OF SPAIN.

COMMERCE OF THE COUNTRY.

STATISTICS SHOW INCREASED IMPORTS AND DECREASED EXPORTS.

Consul-General Benjamin H. Ridgely, of Barcelona, reports concerning the commercial and industrial conditions of Spain last year as follows:

According to all reports and impressions 1906 was a fairly good year for Spain. There were good crops for the most part (Andalusia being the exception), and money seems to have been more generally in circulation than in any recent year. Thus imports were considerably greater than for either 1904 or 1905, and this increase appears in spite of the greatly decreased imports of wheat, which figured so largely in the imports of those years, because of short cereal crops.

For various reasons there was a decided decrease in Spanish exports in 1906. One of the most potent factors in explaining this decrease was the rise in the value of the Spanish silver peseta—the money in which the interior business of the country is transacted—in its relation to gold. For example, the large decrease in exports of wool and wool products is due almost solely to this condition.

ABUNDANT CROPS—EXCHANGE DISADVANTAGE.

There was an excellent wheat crop and all other cereals, as well as most of the fruits, yielded well except olives and almonds. The crop of oranges, which means so much to southern Spain was particularly good, and the exports in January and February, 1907, were unusually large. The crop of Almeria grapes, known to commerce as Malaga grapes, was likewise good, though the grapes were not of as good quality as usual. Nearly all the industries of the country seem to have prospered in spite of the decreased exportation. Among the things that prevented Spain's complete participation in the prosperity which has so generally characterized 1906 in Europe were the disturbed political conditions of the country, the revision of the customs tariff, together with the uncertainty of treaty making with France, Germany, and Switzerland, and the sudden augmentation of the relative gold value of the Spanish silver currency. While this last condition favored importation, it operated largely against exportation for the reason that the manufacturer who sells abroad for

gold pays his labor and all other local charges in Spanish silver. Hence his sales abroad in gold yielded on an average 20 per cent less when turned into Spanish currency than in 1905, and thereby made the cost of production so much higher that he could not sell abroad to the same advantage as heretofore. In some instances this served to shut certain exporters entirely out of markets which they have heretofore been able to hold against France, Germany, and England. For example, Spanish exports of cheap cotton prints and cotton garments to India were almost completely suppressed.

There is probably no better indication as to the whole value and volume of the year's business in Spain than the gross railway earnings, which for the twelve months ending December 22 showed an increase of nearly \$1,000,000 over 1905.

IMPORTS AND EXPORTS.

The central customs administration has just announced the statistics of Spain's exterior commerce for the calendar year 1906. These figures show that the imports for 1906 amounted to \$170,768,069, against \$155,948,750 in 1905 and \$130,378,325 in 1904. The exports were \$196,548,754 in 1906, against \$241,310,725 in 1905 and \$243,906,933 in 1904. The exports exceeded the imports in 1906 by \$25,780,685. The following table shows the imports and exports, according to official classification, for the past two years:

Articles.	Imports.		Exports.	
	1905.	1906.	1905.	1906.
Earths, stones, minerals, glassware, and ceramics.....	\$14,406,576	\$16,712,262	\$50,160,340	\$43,010,441
Metals and their manufactures.....	6,466,827	7,662,222	37,119,116	33,994,759
Drugs and chemicals (products used in agriculture, medicine, perfumery, and chemical industries).....	15,922,689	19,068,087	8,725,088	7,780,940
Cotton and its manufactures.....	17,157,646	22,948,961	18,269,421	9,772,159
Other vegetable fibers and their manufactures.....	3,138,089	3,636,998	958,651	562,067
Wool, hairs, etc., and their manufactures.....	2,386,835	3,128,359	7,262,009	3,758,167
Silk and its manufactures.....	3,027,857	3,932,494	2,046,760	1,956,688
Paper and its manufactures.....	1,999,109	2,482,021	2,786,097	2,472,533
Wood, etc., and manufactures thereof.....	7,775,980	9,625,969	14,985,613	13,669,336
Animals and animal products.....	10,075,915	14,865,864	17,669,179	13,662,192
Instruments and machines of every description.....	11,835,420	14,295,467	717,079	777,948
Alimentary substances.....	52,156,729	48,894,992	81,058,289	63,190,659
All other articles.....	2,277,061	2,859,954	1,686,602	1,306,571
<i>Special classes.</i>				
Tobacco, raw, cigars and cigarettes.....	3,630,836	3,067,051	.....	.....
Gold bullion and coin.....	110,372	56,004	.....	37,122
Silver bullion and coin.....	1,460,015	1,071,415	22,279	1,196,957
Other special imports.....	2,038,568	870,704	.....	.....
Sacks imported (Law 5).....	580,236	394,245	.....	.....
Total.....	155,948,750	170,768,069	241,310,725	196,548,754

The exports continue to be composed principally of minerals and agricultural products. The value of copper ore shipped from Spain during 1906 is given as \$8,558,439, against \$10,288,484 in 1905, although the quantity was 122,165 tons greater in 1906. In iron ore, too, although the quantity exported was 9,311,326 tons, as against 8,590,484 tons in 1905, the value was only \$26,485,796 for 1906, against \$32,564,058 in 1905. Iron pyrites show an increase of 316,258 tons and manganese rose from 48,859 tons in 1905 to 89,150 tons in 1906. An increase is also to be noticed in the exports of all kinds of tiles and mosaics, which is a satisfactory evidence of the progress

made in this industry. A marked falling off took place in pig iron from 59,138 tons in 1905 to 31,514 in 1906. Iron manufactures, on the other hand, increased from 6,780 tons to 26,681 tons.

TEXTILE GOODS AND SOIL PRODUCTS.

Under the heading of cotton goods, exports of plain cotton cloths show a slight increase in quantity, but the total value was about the same. Dyed and printed cottons fell off, as did also knitted goods. This can also be attributed to the rise in value of the silver peseta. When Spanish currency was at a heavy discount, the leading British and German merchants trading in the Far East found it to their advantage to buy certain lines of cheap cotton hosiery and undershirts from the Barcelona manufacturers, but with the gradual improvement in the rate of exchange these purchases have steadily dwindled. The exports of wool and woollen goods dropped by about 50 per cent, and raw silk and silk manufactures also declined.

The shipments of onions show an increase of about 10,390 tons, or from 92,849 tons, valued at \$1,877,148 in 1905, to 103,239 tons, valued at \$1,807,917, in 1906. Almonds fell off somewhat, due to the poor crop, but 249 tons more filberts were exported last year than during 1905. The trade in raisins shows a falling off from 30,245 tons in 1905 to only 20,119 tons in 1906, but the exports of oranges, although not up to the figures for 1904, show a distinct gain, 393,707 tons having been shipped, against 313,607 tons during 1905. In 1905, 6,152 tons of sugar, valued at \$1,399,402, were exported from Spain, but during 1906 only about 3 tons were sold abroad, valued at \$616.

SPANISH TRADE BY COUNTRIES—GERMAN ACTIVITY.

Although there are no detailed statistics yet available, indicating precisely to which countries Spain sent her exports during 1906, it may be safely stated that England and France are still her two best customers. France takes a large share of Spain's market produce, and is also a liberal buyer of her wines, particularly those which are used for blending with French wines. In return, France supplies Spain with silk and other kinds of dress goods, machinery, chemicals, glassware, fine and dressed skins, and many other kinds of goods. To England Spain sends her ores, fruits, sherry wines, onions, and potatoes, and receives in return large quantities of coal, machinery, woollen cloths, fine cotton yarn, and chemicals.

In many lines Germany heads the list of imports into this country, as, for instance, in chemical dyes, wherein the German manufacturers are easily first. A large trade was formerly done with French merchants in indigo, but this has now almost completely disappeared and in its place has come the German chemical substitute known as synthetic indigo. Germany has established important banks here and elsewhere; she has established great business colonies at Barcelona, Bilbao, and other cities of the country, and has in every way identified herself with Spanish commerce. There is hardly a line of manufactured goods which does not find a place in the long list of imports into Spain from Germany. They range from fishhooks to locomotives, from potato dextrine to the latest products of chemical science, and from little brass hooks and eyes to high-class telescopes. Germany sends her traveling salesmen here, who speak the language of the country. She studies Spanish tastes and supplies them.

Spain sends to Germany her ores, fruits, cork, and a little wine. Hamburg merchants also buy cheap cotton-knitted goods here, such as undershirts and hosiery, which are shipped to Hamburg for exportation to Central South America and the Philippine Islands, where it is not to be doubted that they are quite frequently sold as of German production. Swiss merchants were also engaged in this commerce until the appreciation of the Spanish currency in its relation to gold compelled them to largely abandon their imports from here.

TRAFFIC WITH OTHER EUROPEAN COUNTRIES.

Belgium has in Spain a good market for her steel rails and other metal manufactures, besides having secured the principal share of the waning trade in linen yarns. Switzerland's trade with Spain consists of watches, condensed milk, cheese, and embroideries, in exchange for which Spain sends wines and cut corks: It is difficult to arrive at any approximate estimate of the volume of trade between the two countries, the Spanish statistics being completely at variance with the Swiss official returns. This is attributed to the fact that shipments of wine to Switzerland, being sent via Cette to Genoa, are entered as exports to France, or Italy, as the case may be.

The trade carried on between Spain and Scandinavian countries is almost confined to imports of lumber and dried codfish from Sweden and Norway and of canned butter from Denmark. The exports from Spain to those countries are made up of wine, raisins, olive oil, fresh fruit, common salt, and pig iron.

Russia supplies Spain with lumber, wood pulp, and hemp from her Baltic ports and wheat and petroleum from the Black Sea and takes in return wine, oil, fresh and dried fruit, common salt, iron pyrites, lead pigs, and copper ore.

Italy, owing to her natural products being similar to those of Spain, is perhaps her most formidable rival in many other markets. The principal imports from Italy are marble, hemp, sulphur, charcoal, and staves. The exports are made up chiefly of cut corks, olive oil, pressed sardines, alimentary conserves, grapes, and almonds, and also iron and copper ores.

TRADE WITH THE UNITED STATES.

The commercial treaty which was negotiated between Spain and the United States was naturally an event of great interest to American commerce. This treaty puts the United States on the same basis with all other countries, except Portugal and Morocco, as to customs duties and opens up opportunities which have heretofore been denied us because of the discriminating tariff. Agricultural machinery, in fact all sorts of machinery, machine tools, and similar products, as well as hardware, household and kitchen utensils, and all sorts of American novelties are already profiting by this new condition, and there is no reason why there should not be a considerably increased demand for all American manufactured articles during 1907, provided they are intelligently pushed by commercial travelers speaking the language of the country.

Attention has already been called to the benefits accruing to various American products by virtue of Spain's treaty with Switzerland. This treaty, among other things, reduced the duty on gold watches from \$2.80 each to 19.3 cents each, and on silver watches from 38

cents each to 9.5 cents each. It also reduced the duty on pharmaceutical preparations from 38.6 cents to 19.3 cents per kilogram (2.2 pounds). The United States ought to benefit considerably under these reduced tariffs.

During 1906 every American consular district in Spain showed increased exports to the United States, as follows:

Consulates and agencies.	1905.	1906.
Barcelona and agencies, including exports to colonies.....	\$4,005,448	\$4,423,254
Seville, Cadiz, Huelva, and Port St. Marys.....	5,440,245	7,238,188
Malaga and Almeria.....	1,966,401	2,198,665
Valencia, Alicante, Carthagena, and Denia.....	191,656	213,401
Herez de la Frontera.....	400,143	425,943
Madrid.....	190,118	239,543
Total.....	12,184,006	14,738,994

During the calendar year 1906, 19,290 vessels entered and 18,444 vessels sailed from Spanish ports, about one-half of which were foreign, the total cargo landed being 4,367,599 tons and cargo embarked 13,678,707 tons. The comparative cargo figures for 1905 were 4,620,573 and 12,427,889 tons. Not a single American merchant ship appears to have entered any port of this country during the year.

SALE OF AMERICAN GOODS.

EFFECTS OF THE NEW AMERICAN-SPANISH COMMERCIAL TREATY.

Mr. Ridgely also supplies the following information relative to the increasing demands for American products in Barcelona:

Since the new commercial treaty between Spain and the United States went into effect, on September 1, 1906, by the terms of which our goods are put on the same basis as those of the most-favored nation, there has been an increased demand for American products, and this demand will undoubtedly grow. One great increase is in lubricating oils, and another is in oak staves, which were formerly handicapped by an adverse discrimination of 50 per cent in the tariff schedule. There is also a growing demand for all sorts of American household novelties, kitchen utensils, hardware and similar products, camp chairs, mechanical reading and invalid tables, and various other articles which are so ingeniously manufactured in the United States, and for American rubber shoes, of which about 100,000 dozen pairs were imported at Barcelona during 1906.

The one great thing in the way of developing our trade in manufactured articles with this big distributing center is Germany. German traveling agents are always on the spot pushing for business. They see what the market requires, and their manufacturers at once produce the goods to suit Spanish taste. Moreover, German exporters are ever ready to meet the Spanish demand for long credits. One example of German thrift may be cited in the matter of ice boxes. As soon as they saw the American refrigerators making headway, they began to flood the market with a cheaper article. As a consequence American refrigerators are no longer in demand here. The Germans have been unable, however, to supplant either American typewriters or sewing machines in this market, though they have made prodigious efforts to do so, and if American exporters would

send first-class traveling agents here with full lines of samples there is no reason why we should not hold our own all along the line.

HIDES, LEATHER, AND SHOES.

The general buoyancy in the hide and leather trade throughout Europe during the past year has not made itself felt in Barcelona, or elsewhere in Spain. While prices everywhere were steadily rising, hide importers here found great difficulty in obtaining any adequate advances from the tanners, who in turn could obtain no increase in price from the leather factors, the reason being that the shoe manufacturers, in order to retain their hold on the diminishing export trade, were forced to sell at very low prices and could not afford to pay any increase in the cost of their materials. Tanners of light cow-hides and calfskins have to meet the competition of American and German tanned leather, which is largely imported, and which, owing to improved methods, can be offered here at such prices as to enable it to monopolize the greater part of the trade and thus oblige local tanners to work for the barest margin of profit. During the year about 340,000 River Plata hides and 4,500 bales of East Indian kips were imported. But for the general state of prosperity prevailing in Spain, this branch of industry would undoubtedly have suffered more. There are, however, indications of an approaching revival. The prolonged crisis through which the tanning industry has been passing during the past few years has had the effect of obliging many tanners to close their works, and slowly the trade seems to be passing out of the hands of the small, ignorant tanner, with his out-of-date methods, into those of the more enterprising, who, with capital behind them, will endeavor to introduce modern appliances.

It seems to me that American makers of machinery for currying and dressing leather would do well to find out the needs of this market, so as to be ready to supply the demand which is almost sure to come sooner or later.

NO DEMAND FOR AMERICAN SHOES.

I have frequently been asked as to the possibility of creating a market for American shoes in Barcelona, and it may be stated here that this can not be done. The Spanish manufacturers not only make very cheap shoes, but they make fairly good ones, and are abundantly able to supply not only the home demand but to export shoes in considerable quantities to the colonies. Shoes are made—particularly for export to the Spanish colonies—not only here, but at Palma de Majorca, and considerable quantities are exported not only to Porto Rico and the Philippine Islands, but to Cuba. Some American shoes of fairly good quality have been sold here by the department stores, but there is no great demand for them, particularly in view of the fact that the local shoemakers, who are very clever and expert in imitating foreign footwear, will make shoes to order cheaper than good American shoes can be bought ready made.

AMERICAN NOVELTIES, JEWELRY, AND CONDENSED MILK.

There is a certain and ready sale here for all sorts of domestic novelties, meaning thereby useful, practical, and nicely finished articles for house, kitchen, and nursery. For example, this would be a good market for the nicely made baby walkers, which are so widely advertised in the United States, and for many other manufactured articles of the same domestic value.

All sorts of cheap American jewelry could and should be sold here in place of cheap jewelry from Germany. It is merely a question of sending good salesmen with attractive samples to canvass the market, and at the same time to permit some latitude in the matter of credits. The reduced duty on watches of all sorts, as I have heretofore reported, should open up a fine market at Barcelona for our excellent, cheap, gold and silver watches of all classes, products which are now imported principally from France and Switzerland.

Persons who watch trade conditions are unable to understand why American manufacturers of condensed milk do not try to find a market at Barcelona and elsewhere in Spain. There is a very large demand here for this product, and in view of the new commercial treaty with Switzerland, which has reduced the duty to \$9.65 per 220 pounds, it would seem that American exporters might easily find their way into the market, which is now exclusively controlled by Switzerland. Some American condensed milk was offered here several years ago, but as it was entirely devoid of sugar it did not suit the Spanish taste, which demands milk very heavily sweetened, such as that from Switzerland, which is said to contain 45 per cent of saccharine matter. An attempt to introduce unsweetened milk from Norway met with a similar failure, although it was offered at a very low price.

Attention has heretofore been called to this opportunity in special reports from this office, and I am surprised that American manufacturers have seemingly paid no attention to them. At the one port of Tarragona alone 113 tons of condensed milk were imported during 1906.

IMPORTS FROM THE UNITED STATES.

It is very difficult to obtain reliable statistics of the imports into Barcelona, the custom-house merely recording the quantities in weights and measures, no account of values being taken; nor is it certain that the articles imported are always correctly classified. The following statement, prepared from the figures of the custom-house, will give a general idea of the character and quantity of the principal American products entered at Barcelona in 1906, which were in excess of those imported in 1905:

Articles.	Tons.	Articles.	Tons.
Arc lamps.....	2.5	Machines and machinery—continued:	
Bottles.....	35.0	Weighing machines.....	1.0
Cardboard.....	8.7	All other.....	252.5
Casks.....	215.5	Meats and lard.....	150.0
Corn.....	353.0	Oleo-naphthas.....	1,900.0
Cotton.....	61,635.0	Paper of all sorts.....	17.0
Cotton, spun.....	5.0	Perfumery.....	3.0
Chemical products.....	249.0	Petroleum.....	2,460.0
Colors and dyes.....	30.0	Pharmaceutical products.....	12.2
Files.....	10.0	Rubber goods, including shoes.....	20.3
Glass, window.....	4.5	Scientific instruments.....	2.2
Ink, printer's.....	7.5	Staves.....	3,054.0
Iron and steel goods.....	37.2	Staves, additional.....number..	639,146
Kitchen utensils.....	5	Stoves and ovens.....	8.5
Leather.....	31.5	Tiles.....	9.0
Lumber.....	1,028.0	Telegraph goods.....	1.0
Machines and machinery:		Tin plates.....	4.0
Agricultural.....	248.0	Tools of all kinds.....	5.0
Autos.....	2.0	Toys and games.....	1.7
Dynamoes and electrical motors.....	1.1	Varnishes.....	3.1
Engines, steam and gas.....	56.3	Wheels.....	6.0
Sewing and knitting machines.....	14.0	Wire, fencing.....	3.3
Typewriting machines.....	8.8		

The principal exports from Barcelona to the United States during the past two calendar years were as follows:

Articles.	1905.	1906.	Articles.	1905.	1906.
Antimony oxide and regulus.....	\$999	\$29,107	Olive oil.....	\$6,710	\$6,181
Apricot pulp.....	2,807	1,246	Paper, card and cigarette.....	3,138	3,064
Arsenious acid.....	69,324	67,981	Peppers, canned and ground.....	5,983	5,786
Baggings, oak, jute.....	25,600	55,557	Pickers, oak.....	3,666	1,906
Books.....	2,715	8,780	Salt, common.....		3,229
Capers, in vinegar.....	2,006	2,426	Skins, goat, lamb, and sheep.....	14,146	10,107
Corks.....	8,273	5,840	Turron (almond paste).....	1,397	1,337
Cotton cloth.....	4,895	9,927	Walnut wood.....	2,551	3,221
Cotton waste and new cuttings.....	69,760	16,563	Wine, claret.....	21,866	18,069
Fireworks.....		11,548	All other articles.....		
Gentian root.....	1,087	1,306	Total.....	427,884	464,556
Glycerin, crude.....	82,340	69,366	Exports to Porto Rico.....	293,921	369,021
Hides, horse.....		11,777	Exports to the Philippines.....	a 798,750	1,260,516
Jackknives.....	5,489	8,956			
Lace goods.....	8,489	6,669	Total to United States and colonies.....	1,520,555	2,094,093
Lentils.....	1,358	10,866			
Licorice paste.....	71,690	90,076			
Mineral waters.....	14,776	12,348			

a Nine months for 1905.

TARRAGONA PRODUCTS.

NUT AND OIL CROPS—FOREIGN COMMERCE.

Consul-General Ridgely further supplies the following information concerning the conditions at Tarragona in his Spanish consular district for last year:

The agent of this consulate-general at Tarragona says, in his review of the commerce of his district for 1906:

Lack of rain hindered the normal development of the grapes, and there was perhaps not more than a four-fifths yield of wine, of which the quality is, however, superior. The growth of almonds has shared the adverse fortunes of wine, owing to absolute lack of rains between midsummer and crop time, and the output may be reckoned at two-thirds of a normal one.

It should be stated that some 15,000 boxes of almonds are probably being withheld from the market by speculators on the chances of further rise in prices later in the season. Both Iviza and Sicily have considerably outrun Tarragona in the importance of their exportation this year.

The filbert or hazel tree, being far more impervious to atmospheric changes than the almond, has yielded a normal output, but growers from various parts of the district complain of the product being of light weight, the kernel having turned out shrunken through lack of the moisture necessary to its perfect development. The exports do not show any considerable falling off as compared with former years, any shortness of crop of 1906 having been compensated by residues of the crop of 1905.

ADULTERATIONS WITH GROUND ALMONDS—FOREIGN TRADE.

In this connection it may be stated that considerable use is made by unscrupulous druggists and grocers of ground or pounded almond shells to adulterate ground cinnamon, filbert shell being applied with the same object to ground black pepper. Both of these by-products are also said to be much used in the manufacture of cheap chocolates.

The consular agent also reports short crops both of olive oil and locust beans, which are used as a food for horses and mules and are very fattening. Tarragona is a considerable producer of tartar in

different forms and of licorice root, but exports of both these products to the United States have steadily fallen off since the war.

The good effects of the new treaty between the United States and Spain are already being noticed at Tarragona, both in exports and imports. During the year 1906, 844 vessels entered the port of Tarragona, of which 277 were foreign and 567 Spanish.

Imports amounted to \$2,555,303 and exports to \$1,006,507. The principal exports were almonds, filberts, olive oil, and the famous Chartreuse liqueur, which is now manufactured at Tarragona by the expelled French monks. The principal imports were wheat from Russia and Roumania, staves from the United States, codfish from Norway and Sweden, and coal from the United Kingdom.

THE CORK INDUSTRY.

One of the great industries of this consular district is the manufacture of corks at and near San Feliu de Guixols, a small seaport about 100 miles from Barcelona, where nearly all the champagne corks used in Europe are manufactured, as well as corks of all other sorts. The exports of corks and cork sundries from that place to the United States alone amounted to \$1,337,475 in 1906, against \$1,286,012 in 1905. The increase in exports is due to the steady demand for corks of a variety known as "discs," which came into vogue about two years ago. They are only about one-eighth of an inch thick, and are successfully supplanting those of regular sizes for cheap bottling. They are largely used for bottling all sorts of effervescent mineral waters and other similar liquids. The cork bark out of which these corks and other cork-wood products, such as cork insoles, are manufactured, is imported from Portugal, Algiers, and Andalusia.

PORT OF BILBAO.

WHY DIRECT IMPORTS FROM THE UNITED STATES ARE SMALL.

Mr. Ridgely also reports as follows concerning the trade and industries of Bilbao, an agency of the Barcelona consulate-general:

Bilbao, with a population of about 100,000, is one of the most important seaports of Spain, being the center of the iron mines and the iron industry of the country. It was from Bilbao that several large shipments of steel rails were made last year to Mexico. In his report for 1906 to this consulate-general, the consular agent at Bilbao writes as follows:

The year 1906 has shown an improvement as compared with the last four or five years. The exports to the United States have increased considerably during the winter of 1906-7, owing to the results of the new treaty, especially in the line of tinned vegetables, such as peppers, tomatoes, etc. Imports from the United States direct are still very small, because of the absence of any direct steamship lines, and for the reason that the new treaty with Spain has not yet had time to make itself felt. Nearly all American goods, such as lard, bacon, hams, etc., are imported from England and are sold here as British goods. Another cause of the direct imports being small is that American manufacturers do not send drummers to this part of the country, and do not give any credit, whereas English manufacturers do both.

During the year 1906, 3,504 vessels entered at Bilbao, of which 251 entered from foreign countries, bringing 537,222 tons of coal, 12,177 tons of codfish, and 747,819 tons of general cargo; coasting vessels, numbering 1,353, brought 113,135 tons of coal, 9,446 tons of cement, and 218,748 tons of general cargo. Vessels clearing from Bilbao in 1906 for foreign countries carried 4,052,954 tons of ore, 13,354 tons of pig iron, 9,489 tons of wire, and 53,361 tons of general

cargo. The total clearances of cargoes from the port amounted to 4,493,767 tons

The city, as the center of a mining district, was much benefited by the increase in the price of pig iron and iron ore—iron ore being quoted here at \$3.65. The horse-car line was sold to a Belgian company in 1906. It is understood that it will be changed to an electric line, which will be an improvement as well as a source of income to the laboring class.

COMMERCE OF MADRID.

OPPORTUNITY FOR INCREASED AMERICAN TRADE WITH SPAIN.

The following report, covering the trade of Madrid for 1906, is furnished by Vice-Consul Maddin Summers:

The imports and exports of this consular district are almost the same from year to year. Madrid being the Spanish capital, far from any port, and with limited railroad facilities, has no such commercial importance as Barcelona, Bilbao, Malaga, and other cities. The provinces under the jurisdiction of this consulate are mostly agricultural and farming districts, and the products, with the exception of licorice root and a small amount of wool, are not exported, the home trade consuming the entire output. All articles of consumption are very dear in Madrid, due to high octroi duties, high tariff, and high railway rates. After all these charges are met the people find it impossible to buy such foreign goods as fancy groceries, etc. Some high-priced preserves, sauces, breakfast bacons, crackers, pickles, etc., are imported from England, but the consumption is very small.

There are, however, certain articles which could be pushed here, such as machinery of all classes, canned meats, toys, and shoes. As no record can be obtained as to the amount of these articles consumed in this district, I can only say that by conferring with the importers I have ascertained that articles of American production are preferred. This is especially the case in regard to agricultural and heating apparatus. The city is growing fast and all the modern houses which are being constructed are being fitted with steam heating. At the same time all the principal farmers are buying improved farming machinery.

The exports declared at Madrid for the United States during the calendar year 1906 were valued at \$239,543, an increase of \$49,430 over the exports in 1905. This increase was due mainly to the fact that shipments of common wine to the Philippines were invoiced at Madrid instead of at Carthagena and Alicante as formerly. The other articles which represent an increase are such as might vary at any time without any special reason, as the amounts are small. Formerly there was a large amount of wool sent from this district to the United States, but the improvement in the value of the Spanish peseta has made wool exportation impossible, and last year only a few shipments were made.

The chief exports from Madrid to the United States and possessions during the calendar years 1905 and 1906 were as follows:

Article.	1905.	1906.	Article.	1905.	1906.
Antiquities.....	\$1,336	\$4,953	Paintings.....	\$20,416	\$11,044
Books.....	10,830	16,766	Soap, common.....	16,887	25,750
Drugs.....	520	1,421	Wine.....	1,077	75,914
Furniture.....	6,699	1,902	Wool.....	47,075	30,825
Glycerin, crude.....	2,291	4,883	All other articles.....	12,385	6,068
Licorice root.....	67,814	50,395			
Mineral water.....	3,333	9,622	Total.....	190,113	239,543

CANARY ISLANDS.

COMMERCIAL AND INDUSTRIAL PROGRESS—IMPORTS AND EXPORTS.

Consul Solomon Berliner, of Teneriffe, reviews the commerce and industries of the Canary Islands as follows:

There are no statistics issued by the authorities in the Canary Islands, the only records being the manifests on file in the custom-house. These are of little assistance, as the only dutiable articles are sugar, coffee, tea, cocoa, liquors, spirits, and tobacco, which pay according to weight or measure. Local merchants estimate the value of the imports to amount to \$4,000,000, which does not include the imports of coal, valued at \$3,500,000.

Teneriffe and Grand Canary are chiefly used by passing steamers as ports of call for bunkering purposes. In 1906 the former received 267,241 tons of coal and the latter 323,625 tons.

AMERICAN SALES.

Imports from the United States in 1906 amounted to about \$400,000. Altogether, I estimate the value of American goods annually imported into the Canaries at about \$1,250,000, on which we have to pay a tribute to foreigners in the way of freight and the profits of the middleman, whereas if we had our own vessels we should not only be able to increase our trade, but we should also be in a position to sell our goods more cheaply by saving these extras. A direct line of good steamers would undoubtedly pay well.

All petroleum comes from the United States, the imports amounting to 49,901 cases, an increase of 12,712 cases over 1905. Of this quantity 34,627 cases were transhipped to the West Coast of Africa. Each case contains two cans of 5 gallons each. The value of the imports of lard and hams was about \$125,000, all of American origin, but appearing as being imported from England. The importation of flour at Teneriffe amounted to 5,250 tons, an increase of 432 tons over 1905. There has been a great increase in the imports of typewriters and cash registers, all of which are of American manufacture. American hardware has also gained a foothold. The imports of cottons from the United States have increased, the articles most in demand being jeans, sheetings, and shirtings. Wood for building purposes comes from the United States, amounting last year to 3,426 tons, an increase of 184 tons over the imports in 1905. Wood used for packing fruit and vegetables comes from Norway, 5,068 tons being imported in 1906.

Fully 95 per cent of the leaf tobacco imported at Teneriffe is of American origin. The principal kinds are Kentucky and Virginia; also to some extent cuttings and scraps from manufactured cigars. These are shipped via Liverpool and Hamburg. A large quantity of plug tobacco is also imported, not for local consumption, but for sale on board passing vessels. Manufactured tobacco is imported principally from Cuba and England, the former supplying cigars, cigarettes, and picadura (tobacco for making cigarettes) and the latter cigarettes.

BRITISH SHARE OF TRADE—EXPORTS.

England led all countries in supplying the imports, leading in cement, fruits and vegetables, flour, fertilizers, wheat, and coal. Germany furnished large quantities of beer and alcohol, sugar, and

vegetables; France furnished liquors, oils, sulphur, and cement; and Spain supplied oils, liquors, wine, textiles, rice, and cement.

The declared exports from Teneriffe to the United States in 1906 amounted to \$133,867, and consisted of the following articles: Almonds, \$12,786; cochineal, \$23,444; drawn work, \$82,637; onion seed, \$14,729, and potatoes, \$270. The exports from Grand Canary to the United States during the same year were valued at \$31,685, of which \$27,967 was for cochineal. The increase in the declared exports from Teneriffe to the United States for 1906 was \$12,105. The exports from Teneriffe to Porto Rico in 1906 amounted to \$1,463, a decrease of \$2,868 from 1905, and from Grand Canary and La Palma to Porto Rico the value was \$22,177 and \$578, respectively. The exports of bananas to all countries amounted to \$2,515,569; tomatoes, \$1,027,485, and potatoes, \$354,060. The crop of onion seed was enormous and far exceeded the demand. It is estimated that over 40,000 pounds were left on the hands of the dealers. Many farmers are again planting the cochineal cactus (*Nopales cochinealifera*), on which the insect thrives. The value of the almond crop is estimated as high as \$60,000.

Drawn work gives employment to 10,000 women, who earn from 15 to 25 cents a day. A company has obtained a concession to manufacture gas and lay pipes for its conveyance to all parts of Teneriffe. This new departure has already had the effect of reducing the price of electric light by 20 per cent. Another company has acquired property in Puerto-Orotava and is importing machinery to extract the fiber from the banana stalk and by a secret process to weave it into cloth which can be used for sacking and baling. There is also a project to lay a cable from Vigo to Teneriffe, with branches running to the West Coast of Africa, Brazil, Uruguay, and Argentina. [A sample of the fiber extracted from the banana stalk has been received by the Bureau of Manufactures.]

PARCELS POST.

THE WEIGHT ALLOWANCE IS RAISED.

Consular Agent A. J. Bensusan quotes from an official Cadiz paper that the limitation in weight of international parcels post, hitherto fixed in Spanish territory at 3 kilos (kilo, 2½ pounds) as a maximum, was on January 1, 1907, increased to 5 kilos, the cost of transportation remaining the same as formerly. Before this improvement in the parcels-post service was introduced parcels from abroad, on arrival at the Spanish frontier, had to be divided into two packages, one weighing 3, the other 2 kilos, which caused delay in delivery and extra expenses, which is no longer the case.

GERMAN EMPIRE.

EXPANSION OF FOREIGN TRADE.

CONTINUED PROSPEROUS CONDITIONS COMMERCIALLY AND INDUSTRIALLY.

The London Financial Times publishes the following summary of the annual report on the foreign trade of the German Empire by the British consul-general at Berlin:

Much has been written of late about the prosperity of the United States, but it may be doubted whether even in that marvelous country the conditions of economic life have shown a more exuberant vitality than has prevailed of late in Germany. We have before us the annual report of Consul-General Schwabach on the trade of the Fatherland for 1906, which was published on May 28. It is a picture of intense activity. The year, in fact, has proved the high-water mark so far of the country's economic development. The quantities of goods placed on the home and the foreign market by German factories reached record figures. Enlargements of factories, which drained the resources of the money market, were still barely sufficient to cope with the demand. Work people, both native and foreign, were fully employed, and in some industries there was even a shortage. As in America, railway rolling stock proved insufficient to cope with the growing needs of trade. Even agriculture shared in the general prosperity, and one of the best features of last year's business was the continued expansion of the home market.

Taking iron and ironware as a typical example, we find that, whereas the exports only advanced by 9.44 per cent last year, the imports increased by 114 per cent. Again, the home consumption of pig iron amounted in 1906 to 8,208,000 metric tons (metric ton = 2,204.6 pounds), an advance of not far from a million tons as against 1905. On the other hand, the output of 12,478,000 metric tons shows an advance of over one and a half millions. Turning to the railway returns, we find the total receipts of the system amounting to over \$520,715,000 in 1906, of which \$363,000,000 was derived from goods and \$157,715,000 from passengers. As compared with 1905, the increase in the total gross receipts is close upon \$50,000,000, of which over \$35,000,000 was from freight.

A few figures will serve to emphasize the striking nature of last year's progress. The new joint stock companies floated in 1906 totaled 212, with a capital of over \$117,000,000, comparing with 198, with a capital of under \$100,000,000, in 1905, and with 104 companies having a capital of only \$36,000,000 in 1904. The Prussian savings banks showed the great increase of \$131,000,000 in deposits in 1905 to a total of \$2,020,000,000, and no doubt the returns for last year, which are not yet available, will exhibit a further expansion. But, perhaps, the growth of Germany's wealth is best demonstrated by the income-tax returns. These show that in 1900 the number of persons liable to income tax was 3,380,000, and the total income assessable was \$2,007,134,000. Last year the number was 4,675,000 and the assessable total \$2,609,889,000. The increase last year was about 7 per cent as against 1905 on the amount of income taxable, but since 1892 the advance has been no less than 80 per cent!

The returns of the foreign trade and of the railway traffics bear further and indisputable testimony to the national expansion. The following table, showing the exports and imports for the last five years, speaks for itself:

Year.	Imports.		Exports.	
	Total.	Per cent increase.	Total.	Per cent increase.
1902.....	\$1,412,691,000	1.6	\$1,171,064,000	6.6
1903.....	1,538,091,000	8.8	1,248,320,000	6.5
1904.....	1,667,862,000	8.4	1,298,428,000	3.6
1905.....	1,809,427,000	8.4	1,421,461,000	9.9
1906.....	2,029,150,000	12.1	1,519,268,000	6.8

Concerning the commercial treaties the British consul-general's report says: "The new commercial treaties have given rise to many anxious fears among those interested, and these forebodings have been echoed in the German press. If these pessimistic prognostications have not as yet been verified, they have by no means been proved to be unwarranted. The period during which these

treaties have been in force is still far too short to judge of their effect; moreover, the unusually favorable condition of international commerce secured markets to German trade of which it would, without doubt, have been deprived in times of less industrial prosperity. In spite of all the impetus given to trade by the prevalent international activity, complaints have been made in various industrial branches to the effect that under the régime of the new commercial policy the profits on their exports are diminishing."

A rise in the cost of the necessaries of life is another untoward effect of the new tariff. Nevertheless, in spite of all hindrances, the fact remains that 1906 was a record year for German trade and industry, and the Empire was never more palpitating with energy and vitality than it is to-day.

ALSACE AND BADEN INDUSTRIES.

FAIR CROPS AND ACTIVE FACTORIES IN THAT PART OF GERMANY.

Agricultural crops in Upper Alsace and Baden, according to the report of Consul E. Theophilus Liefeld, of Freiburg, were good last year, except wine and tobacco. He says:

It is proposed to raise the value of the tobacco cultivated by organizing associations of tobacco growers. These will issue regulations and suggestions regarding the cultivation of the crop, and it is proposed to make an agreement with the Manufacturers' Association that the latter buy from the members of the Growers' Association at prices arranged by a special commission.

In the various industries the iron foundries were kept busy, but the business did not pay as well as usual because of high prices of raw material. The good business in iron and steel in the United States, together with the influence of the Steel Association, made it possible to increase the prices of exported goods to a level with the goods for home consumption, while formerly goods for export were sold cheaper than in the home market. Safe manufacturers had a poor year, strong competition making the business unprofitable. Conditions also were unsatisfactory in the zinc ornament and iron construction industries. Though the demand was good, prices were so poor that no profit could be made and, in addition, raw materials had gone up. There was an insufficient supply of skilled labor, notwithstanding the increase of wages by from 5 to 10 per cent.

OPERATIONS IN MACHINERY AND WOODEN WARE.

Machine works were fairly satisfied with the year, though the low prices kept down the profits. The machinery was busy at the mill, sawmill, turbine, gas washer, etc., and the installing of new and improved equipment allowed the mills to turn out more product with less help. Manufacturers of agricultural implements found the demand good, though prices were still a trifle low. The cook-stove industry did a good but not a very paying business, for the rising prices of iron, copper, etc., affected this branch of trade. In addition, the prices of the finished articles dropped considerably until an agreement was entered into by a number of factories in Rastatt and Offenburg fixing higher prices. Shoe-nail factories reported a poor year, sales having decreased as well as prices, while the cost of wire increased.

In gold and silver wares the good business conditions at the end of the nineties have not yet reappeared, but last year was somewhat better than 1905. In the matter of style, which during the past few years has been demanding modern creations, thought is again turning

back to the Louis XVI and empire styles in silver and silver-plated articles. In precious stones the better qualities and higher priced are more popular.

The furniture trade on the whole was good. Manufacturers of tables reported a very satisfactory business. The hard-wood or parquet-floor industry showed no improvement over the previous year. Chair and stool factories were busy, both in the line of cheap, rough goods and in high-priced goods. Organ manufacturers in general had a good year, with prices remaining about as they had been, though church organ manufacturers claimed that there had been a lack of orders in their line. The wood-shoe, excelsior, and basket industries did not improve. In brush manufacturing the demand was about equal to that of the previous year, but prices were poorer.

The year was a favorable one in the porcelain button and bead industries, but increasing competition made it hard to keep prices up to even the low standard of the previous year. This industry was anxious as to the results of the tariff negotiations between Germany and the United States, since better opportunities in the American market would be of vast importance.

CELLULOSE AND PAPER MAKING PROFITABLE—LEATHER ACTIVITY.

The cellulose works, which employed about 12,000 hands and paid out \$2,856,000 in wages, converted 2,485,200 cubic yards of wood into cellulose. Business during the year was good. More wood fiber was produced than during the previous year. It is beginning to be realized that this industry must be on the lookout for its wood supply and the manufacturers are organizing with a view to regulating the buying of the raw material, so that the waste will be avoided.

Paper manufacturers reported a continuous good demand for their product, but prices could not be increased. The consumption of paper, especially of printing paper, is steadily increasing. Manufacturers of cardboard, of paper boxes, and of cartons, reported good sales; but increases in prices of raw material, higher advertising expenses, and strong competition by small firms kept down the profit. The graphic and chromolithographic institutions reported a good demand both in Germany and in the important English market, but this did not mean an increase of profits, because of higher cost of material, coal, and wages. Printing and publishing institutions had a very satisfactory year.

Leather tanneries reported a greater demand than at any time since 1895. This demand allowed a rise in price, which was necessary since hides had gone up. In the morocco leather industries the only hindrance to a banner year was the great increase in the prices of raw materials. Working hours were reduced by a half hour daily and wages were raised 10 per cent. Shoe manufacturers had to install new machinery and employ more workmen. Raw material rose fully 10 per cent. Sole leather manufacturers reported a slight improvement in conditions over the previous year. Felt hat manufacturers were well satisfied with their business. The prices of raw materials increased, but by combining the manufacturers succeeded also in increasing the prices received for the finished goods.

TEXTILE TRADE DIFFICULTIES.

In textiles the business in the cotton spinneries and weaving industries was found satisfactory, though some of the factories in

Alsace reported gloomily on the situation. Hemp industries were kept busy with orders, but profits were very unsatisfactory. Raw prices rose faster than the prices of the finished products could be raised. Linen weaveries and bleacheries had a good business year, yet prices could not be raised to correspond with the increased raw material prices. The silk weaving business showed neither improvement nor decline. The rise in the price of coal was severely felt by this industry. Wages were increased from 10 to 15 per cent. Silk ribbon manufacturers reported a poor year, the demand being slack and prices bad. In silk bolting cloth the production increased slightly. Sewing silk manufacturers reported an average year, with prices brought down by sharp competition.

Makers of woollen blankets had a fair business year. Cross wool was not in demand, and so many factories had to change over to the production of cotton. Artificial wool suffered under increased raw product prices. Manufacturers of sacks, canvas, and wagon covers had a satisfactory year, but raw materials advanced as much as 25 per cent, while by combination the manufacturers were able to obtain only a 10 per cent increase on their goods. The ramie spinning industry and the jute weaving industry had a satisfactory year.

ANNABERG'S AMERICAN SALES.

SUBSTANTIAL INCREASE THIS YEAR—GENERAL TRADE CONDITIONS.

Consul George N. Ifft states that exports from the Annaberg consular district to the United States for the first quarter of the present calendar year continue to show the same steady increase which marked the whole of the year 1906. He contributes the following review of this and other commercial and industrial features of that part of Germany:

The total shipments to America from Annaberg for the quarter was \$205,719. This is an increase of \$40,655, or about 25 per cent, over the same quarter of 1906, and of \$96,240, or nearly 88 per cent, over the same period of 1905. Nearly three-fourths of the total exports, \$156,752, were beaded goods and dress trimmings, and the increase over the same quarter of last year in this single item was \$28,933.

The year 1907 opened with predictions of a dull season here on the part of both manufacturers and exporters. They complained of lack of "repeat" orders which they kept up until after the "before-Easter Messe" at Leipzig. One hundred and fifty-five Erz Mountain manufacturers, representing 25 cities and towns, mostly in this district, were at that great world's fair with their samples. They were mostly manufacturers of stamped and embossed paper novelties, toys, and tinsel goods. All returned in high good humor, reporting an abundance of American orders—some of them enough to keep their factories operating full capacity for the next six months.

IMPORTANCE OF THE LEIPZIG FAIR.

The great Leipzig Messe is still a word to conjure with in Europe. There are other so-called fairs—most of the Saxon cities still observe their annual fair days—but, excepting the Leipzig fair, all have lost their meaning as such and have become little more than carnival

days. I attended many of them—general fairs, ox markets, horse fairs, etc.—annual events dating from the middle ages, but found them without commercial significance and observed only as local holidays. The merchants of the world, however, still come to the great fairs at Leipzig and come for the purpose of buying and selling, of showing samples, or of contracting for a season's stock from the samples shown.

Beaded goods—bags, belts, and fringes—have been much more popular during the past season than have the Erz Mountain dress trimmings proper. These latter, of almost endless variety, are known by the general term of "Posamenten," and include laces, galloons, orris, embroideries, fringes, braids, gimps, insertions, etc. The demand for this class of goods is slow; they have gone out of fashion.

American buyers here complain that the manufacturers have nothing new to offer; that they have no novelties, nothing different from last year or the year before with which to catch the eye of "my lady." That this situation is recognized here is evidenced by the fact that several municipalities in this district are establishing schools to teach the art and to stimulate interest in the invention of new designs. The sister cities of Annaberg and Buchholz have founded such a school and are this year erecting a handsome building for its housing. This is all the more necessary as there is already evidence of a waning demand for beaded goods.

PRICE REGULATIONS—NEW FACTORIES.

The larger manufacturers and exporters of these classes of goods are also attempting to find some way of regulating and securing uniform and higher prices for their products. This, owing to the peculiar labor conditions, is a difficult problem. The man who has a hand loom at home, and whose employees are limited to the members of his family, regards himself as a manufacturer and has his samples always ready for exhibition. He is hampered by no wage scale and often underbids the actual manufacturer who operates an expensive plant and gives employment to many men and women. For six months past the question of an organization to control prices and to regulate trade conditions, particularly those of the export trade, has been under discussion, but no agreement has yet been reached with the smaller manufacturers and the "home" workers. While nothing has yet been accomplished, it is generally recognized that some such arrangement must be finally reached if prices are to be kept up to the living point and the leading industry of these mountains to be saved from extinction.

The paper industry throughout the district is prosperous, and while this product is not as yet a large item of export, it is increasing rapidly. The export of fancy calendar backs and wall pockets, stamped and embossed paper novelties for the first quarter of this year shows an increase of over 90 per cent over the same period 1906, and of nearly 300 per cent over the same period 1905. Many of the paper manufacturers of the district are enlarging their plants this year and several new plants are being established, notably one in the neighboring town of Elterlein, which will not only have capacity for a large output but which is also equipped with the most modern machinery and will make a specialty of high-class output.

TOY TRADE ALSO ACTIVE—TIN MINING—WHEAT CROP DAMAGE.

The toy industry at Marienberg, Gruenhainichen, Eppendorf, Olbernhau, Waldkirchen, etc., has the promise of a prosperous season. Toy making is a considerable item in the activities of the Annaberg consular district, but only a small part of the invoices of the toys sent to the United States pass through this consulate. Most of the Erz Mountain toys are handled by the commission merchants in the large centers of German trade or sold from samples at the Leipzig Messe, and only a few of the invoices of such sales find their way back here for certification. The declared export of toys at this consulate for the first quarter of 1907 shows an increase over the same period of 1906 of over 33 per cent.

The reopening of several long-abandoned tin mines throughout the Erz Mountains now seems assured. One mine at Ehrenfriedersdorf is now working a considerable force and expects to give employment to 200 miners before the summer is over. Work preparatory to the reopening of several other old mines in the same vicinity is in progress.

Reports from all parts of Saxony, as well as throughout Germany generally, indicate serious damage to winter wheat from the severe frosts. So great was the damage that at many places in the Kingdom of Saxony, in Thuringia, in Hanover, and in the province of Saxony the wheat fields are being plowed up and planted to other crops. Rye also suffered greatly, but the damage was generally less than to fall-sown wheat.

ACTIVITY AT LEIPZIG.**MANUFACTURES AND EXPORTS OF SAXONY'S LARGEST CITY.**

Consul Southard P. Warner, in reporting on the trade conditions in the German district of Leipzig for the calendar year 1906, shows that exports to the United States increased. He writes:

Trade during the year 1906 was very active in nearly all branches of industry. As a rule, factories were busy to their productive limits, and in numerous lines of manufacture extra hours and an increase in the working forces were found necessary. Many manufacturers enlarged their plants during the year. It is reported that many firms received enough orders during 1906 to keep them busy the greater part of 1907. The fact that 1,679,290 tons of coal were consumed in Leipzig in 1906, as against 1,568,681 tons in 1905, gives a fair idea of the intensity of manufacturing here during the past year.

Unsatisfactory conditions were reported only in a few branches of trade. They were due to unusual circumstances and not to an unfavorable market. The chromolithographic and book-binding industries, for example, were injured by strikes of long duration; the brewing and cigarette manufacturing industries were severely injured by the new taxes which were levied upon their products.

ADVANCE IN COST OF RAW MATERIALS AND LABOR.

Although, in regard to business activity and sales, the year 1906 surpassed all previous years, the same statement is even more true regarding the prices of raw materials. The cost of all raw materials, especially of metals, advanced greatly during the year. This rise in

prices is attributed partly to the scarcity of raw material and partly to the holding together on the part of the syndicates. Among the raw materials which advanced the most in price during 1906 may be mentioned all kinds of metals, skins, hides, leather, cotton, yarn, silk, jute, chemicals, and foreign and domestic lumber. The profits derived by the manufacturers were out of proportion to the large sales of the year. This was due to the fact that it was impossible in nearly all lines of trade, in spite of the increase in the prices of raw materials and the higher wages, to secure correspondingly high factory prices. Almost without exception the manufacturers in this district complained of this incongruity between the cost of manufacturing and the factory prices attained.

Hand in hand with the increase in the prices of all raw materials went the demands among the working classes for higher wages. These demands for higher wages were justified because of raised prices of all foodstuffs, especially of meat, and were granted in nearly every instance. There is hardly a single branch of trade in this district which was not affected by the demands for higher wages during the past year.

The condition of the working classes in 1906 was less satisfactory than in previous years. This fact was very evident from the large number of strikes and other movements among the working classes. One of the most important events of the year, as far as wages were concerned, was the agreement on the part of the publishers here to increase the wages of the printers and typesetters 10 per cent after January 1, 1907. Nearly all branches of industry reported a scarcity of competent workmen, both male and female. This was especially true regarding the younger classes.

MONEY IN DEMAND WITH LIMITED SUPPLY.

It was generally thought in 1905 that the financial situation would improve in 1906. Such, however, was not the case. Because of the general business activity, the necessary enlargements of plants, the increase in the prices of raw materials, and the higher wages, there was a very active demand for money. Credit was made use of to an unusual extent. The average rate of discount of the German Bank for the year was 5.15 per cent as against 3.82 per cent in 1905. The rate of discount of private firms was from one-half to 1 per cent less. Mortgages were difficult to obtain, especially during the last half of the year. Second mortgages could, as a rule, not be had at less than 5 per cent. The high rate of discount of the German Bank doubtless prevented many unwise speculative undertakings on the part of the manufacturers here. It also caused a decided tendency to lengthen all terms of payment whenever possible, and long-term notes were in very general usage.

The number of bankruptcies reported in Leipzig in 1906 was 213, as against 276 in 1905.

EXPORTS TO THE UNITED STATES.

The declared value of the exports to the United States from this consular district for the calendar year 1906 was \$9,888,872 as against \$9,208,289 in 1905, an increase of \$680,583. The following table gives the principal articles:

Articles.	1906.	1905.	Articles.	1906.	1905.
Books	\$661,714	\$582,065	Oil:		
Boxes, fancy paper	14,808	12,260	Essential	\$175,083	\$186,460
Bristles	1,368,783	942,166	Rose	40,737	22,725
Chemicals	14,113	10,270	Paperware	150,880	84,939
Acid, oxalic	102,880	49,168	Peptomangan	90,388	84,958
Drugs	36,776	31,867	Powder, bleaching	72,106	82,554
Potash—			Piano felt	92,410	89,536
Carbonate	50,921	71,041	Printed music	83,604	81,740
Caustic	100,255	118,830	Roots, bulbs, and plants	20,297	16,619
Potassium, cyanide	71,196	133,485	Scientific instruments	13,320	9,146
Chromolithographs	532,942	155,431	Seeds	48,796	31,280
Colors	106,625	96,173	Toys	25,659	10,082
Furs and skins	5,658,526	5,923,128	Wall paper	27,476	30,368
Hides	31,764	88,206	Woolen goods	12,643	10,277
India-rubber goods	28,472	16,447	Yarns	25,034	12,589
Instruments, musical	33,027	16,976	All other articles	94,755	184,954
Machinery	67,472	50,731			
Medical preparations	36,996	26,838	Total	9,888,872	9,208,299

Under the heading "All other articles" are included accordions, acetine, canvas for artists, basket willows, bleached cotton, brassware, cane goods, carpets, chinaware, cocoa butter, cork ware, cotton goods, designs, electrotypes, foot rules, fruit juice, gloves, horsehair, household effects, lamps, linen goods, lithographic stones, magnesium (metal and powder), oil printings, paintings, permanganate of potassium, plows, polishing extracts, table covers, sauce cubes, tinware, tools, type, wine, and wool grease.

BUSINESS AT MAINZ.

INCREASED EXPORTS TO THE UNITED STATES—IMPORTS OF CITY

The possibility of a period of overproduction following the present activity and the importance which the German manufacturers attach to the foreign markets are explained by Consul Walter Schumann in his review of the trade of Mainz, as follows:

The past year has been one of continued and unusual prosperity. At the height of prosperity, however, wise business men are looking to the future, to a time when this marvelous expansion must needs reach its limit. Then, more than ever, must the German merchant look for suitable outlets for his overproduction in foreign markets, and it will be shown whether the commercial treaties concluded during the past year will benefit German commerce and industries to the extent expected. It is the aim of all the great industrial countries—except Great Britain, which still holds fast to the doctrine of free trade—to work up as much as possible of their raw products into finished manufactured wares and to import only such articles as can not be produced at home. As a consequence all home industries have greatly been developed. This, it is hoped, will further develop the export trade of this district.

The individual has suffered to a considerable extent during the past year owing to the abnormally high prices of the necessities of life, especially of meat. A matter of some anxiety is that, notwithstanding the general prosperity, the selling prices of the majority of manufactured articles can not be advanced in the requisite proportion to meet the higher cost of production, caused by the raw materials having, during the past year, increased exorbitantly in price in a number of cases; and also the cost of labor having increased, due to the higher

cost of living. Nevertheless, on the whole, the past year was a very good one, and if the present year turns out as well the merchants and manufacturers of this district may well be satisfied.

SHIPMENTS TO AMERICA—IMPORTS OF MAINZ.

A statement showing the declared value of exports from this consular district to the United States during the year 1906 is as follows:

Articles.	Value.	Articles.	Value.
Albumen	\$4,788	Printed cards (post cards) and books..	\$7,429
Agates, opals, and other similar precious stones.....	587,559	Printed music	1,066
Chemicals	470,116	Steel beams and billets.....	8,995
Capsules (tin foil)	4,787	Sundries	10,525
Colors	4,728	Tar oil	32,835
Diamonds and brilliants.....	222,425	Tiles, glazed and unglazed.....	4,367
Earthenware and glassware	79,170	Wine:	
Fret saws	11,830	Still	777,101
Glue	17,967	Sparkling	48,453
Grass and other seeds	46,571	White shellac	6,230
Hops	87,946		
Jewelry and cheap jewelry	81,650	Total for 1906	2,779,231
Leather	49,542	Total for 1905	2,617,031
Natural mineral water.....	55,756		
Pearls and half pearls	139,610	Increase in 1906	162,200
Preserved fruits and vegetables	17,796		

Appended is a table of the chief imports entered at the port of Mainz in 1906. The statistics are in hundredweights avoirdupois.

Articles.	Hundred-weight.	Articles.	Hundred-weight.
Wheat and rye.....	419,885	Rice	23,062
Barley	126,533	Linseed oil	818
Oats	140,923	Table oil	57
Millet	874	Castor oil	88
Indian corn.....	35,697	Palm and cocoanut oil.....	182
Legumes	22,495	Sugar, refined	16,764
Rape seed	112,721	Brandy, rum, and arrack	2,129
Tobacco leaves.....	303	Wine for blending	7,486
Dried fruits	27,709	Wine for distilling purposes.....	490
Coffee, green.....	31,607	Still wine in wood	62,990
Spices	3,102	Sparkling wine	594
Cedar and mahogany wood.....	79	Still wine in bottles.....	162
Oak barrel staves	1,126	Beer	35
Tan bark	66	Lubricating oil.....	77,460
Salted herrings	11,701	Petroleum.....	250,206
Lard	18,086	Tobacco, cigars, and cigarettes.....	31
Tallow	1,172	Sea salt.....	5,007
Fish oil	1,395	Empty petroleum casks	7,620
Eggs of poultry	119,460	Cork stoppers	19,978
Flour, farina, and oatmeal.....	723		

ZITTAU'S INDUSTRIES.

SAXON TEXTILE CITY ENJOYS LARGE AMERICAN TRADE.

Vice-Consul Herbert Smith, in a report from Zittau, describes the textile manufacturing activity in that German district, which sells of linen goods alone over \$1,500,000 worth to the United States annually. He writes:

While both the domestic and foreign trade in practically all branches was very brisk during the first half of the year 1906, the last six months was a period of unprecedented prosperity, and most firms ended the year with orders on their books covering from six months to the whole of 1907. During the period in question the num-

ber of factories increased from 1,700 to nearly 1,900, and the work people from 65,100 to about 70,000. The following table shows the principal industries of the district and their importance:

Industry.	Number of establishments.	Number of employees.	Industry.	Number of establishments.	Number of employees.
Textile	392	41,920	Lumber	213	2,097
Stone, brick, etc.	296	9,498	Foodstuffs	414	2,686
Machinery	144	4,338	Metal	76	1,431
Clothing, etc.	227	3,345	Paper	27	1,391

Other trades of minor importance include leather, chemicals, oil and fats, etc., employing in the aggregate some few hundred hands only. The textile trade easily ranks first in importance, and is also the principal industry entering into trade relations with the United States.

In this branch of trade about one-third of the existing establishments have also enlarged their premises in order to accommodate more machinery. In fact, so great has been the desire for enlargement that a large number of looms, fitted up to meet the exigencies of the trade, have been obliged to remain idle for lack of weavers to attend them. There would have been an even greater dearth of work people in the district but for an influx of Russians and Poles.

HOUSEHOLD LINEN FOR THE UNITED STATES.

The chief articles exported to the United States are household linen and union goods, which constitute about 85 per cent of the total exports, amounting to \$1,525,000, in round numbers, for the calendar year 1906. The linen manufacturers, although well supplied with orders, have probably the least cause to be satisfied with the high pressure in trade. During the whole year they had to contend with ever-increasing prices of raw materials, due largely to the uncertainty of supplies from Russia. Consequently the prices obtained for the finished article have not been commensurate with the increased cost of production.

Unfavorable state of prices in other trades have induced the jute spinners and brick and tile makers to create combinations which, so far, have had good results. Strikes threatened at many mills, but an agreement of employers to concede a 10 per cent advance all round allayed all fear of disturbance. There were 137 business failures, as against 102 for the preceding year, the majority being small tradesmen.

The satisfactory state of trade is reflected by the increased takings of the railways and post-office and by the deposits in the savings banks, which latter show an increase of \$1,405,599, making a total for the year of \$33,042,492. The opinion is general that the "boom" will last well into 1908.

EXPOSITION IDEA.

PROPOSITION TO HOLD A WORLD'S FAIR MEETS OPPOSITION.

According to Consul-General Richard Guenther, of Frankfort, the German Commercial Union (Handelstag) has sent out a circular

letter to the German chambers of commerce in order to learn their views with reference to a world's exposition, to be held at Berlin in 1913 or other year of the coming decade.

In answer to this the chamber of commerce at Mayence has recently adopted the following resolution, which seems to voice the opinion generally entertained in Germany concerning world's fairs:

The chamber of commerce has resolved to answer that it can not recognize the holding of a world's exposition at Berlin in the year 1913, or in some other year of the coming decade, as in the interest of Germany's industries and commerce; that it deems it more advisable, instead of general world's expositions, to organize for all products of human activity international expositions of a special industry, as such only can have the effect of fructifying and stimulating the industries and trades.

The chamber is therefore of the opinion that from its district no substantial participation can be expected in a general world's exposition, but that, on the other hand, it could be expected under all circumstances in well-organized international special expositions (*Fach Ausstellungen*), provided they do not succeed each other too quickly.

WATERPROOFING PAPER.

GERMAN PROCESS FOR STRENGTHENING CELLULOSE VESSELS.

Consul T. H. Norton writes from Chemnitz that there has been considerable study of late years in Germany on the method of treating paper, in its various forms, so as to increase its usefulness for various industrial and household purposes. He furnishes the following particulars:

There are several methods now in vogue here for rendering paper and pasteboard waterproof which might advantageously be utilized in the manufacture of paper and cellulose vessels. One, especially applied to cellulose, consists in treating the sheets with a hot mixture of asphalt, turpentine, and linseed oil solution of glue. Another consists of saturating cellulose articles in a solution of resin in a mixture of petroleum, linseed oil, and paraffin oil. Solutions of varnish in linseed oil are likewise employed for rendering a surface waterproof.

A process which has given good results is the following: Articles of paper or cellulose are soaked thoroughly in a solution of resin soap. They are then immersed in a hot bath of zinc chlorid, passed between rollers, are well washed, dried in a hot room, treated with paraffin oil, and finally run through a calender. The resultant products are strong, tough, and pliable. A waterproof pasteboard is secured by immersing sheets of ordinary paper in a bath of nitric acid or the solution of a nitrate, placing the sheets one on top of another, and then submitting them to heavy pressure. I am personally inclined to regard experimental methods, based upon the fundamental principle of changing paper into vegetable parchment, as promising the most success in this field. Waterproof cardboard has already been manufactured by pressing tightly together freshly prepared sheets of the vegetable parchment before being dried.

PARCHMENTIZING PAPER.

The operations in parchementizing paper, like those in tanning, are essentially chemical, and effect a remarkable change in physical prop-

erties. When carried out with partly diluted sulphuric acid (two parts acid of 66° to one part water) sheets of pure cellulose paper are immersed for a few seconds in the liquid, then thoroughly washed in water, dipped in an alkaline solution (ammonia or sodium carbonate) and washed again. This brief treatment suffices to bring about the following changes: The thickness of the paper decreases from 34 to 37 per cent. Its specific weight increases in the same ratio. The strength is tripled and even quadrupled. There is a notable increase in homogeneity and transparency. The product is unaffected by boiling water, i. e., is not softened and disintegrated, as in the case with ordinary paper, while it has an increased affinity for tinctorial substances.

Chemically, the brief exposure to the action of sulphuric acid has changed the exterior of the cellulose fibers to a gelatinous mass, the so-called amyloid, intermediary between cellulose and dextrin. This gelatinous amyloid binds the fibers so closely and intimately together that they form a continuous mass, which, being totally insoluble, constitutes a waterproof substance. With the microscope it is easy to see that parchment is a sheet of cellulose fibers, each one of which is covered by the thin transparent coating of amyloid, the interstices or pores likewise being completely filled with the same substance. It is essentially a surface action which has taken place. Ideal conditions of success are relative thinness of the paper employed and a complete absence therein of gluey substances and mineral matter. Sulphuric acid can be replaced by an aqueous solution of zinc chlorid or an ammoniacal solution of cuprous oxid.

In order to render paper vessels waterproof, the essential features of the parchmentizing might be applied to their external surface. This would involve no material increase in the strength of the entire mass. Another, and possibly more promising method, would be to apply freshly formed sheets of vegetable parchment under strong pressure to the inner and outer surfaces of the article. It will probably be found that improvements in the manufacture of paper vessels, aiming at an increase of tenacity, can preferably be brought about by mechanical operations quite distinct from the chemical reactions producing waterproofing, although both of these advantages are secured by a single change in the case of the preparation of thin sheets of paper parchment.

NEW LEAD PENCIL.

POTATO STARCH IS TO TAKE THE PLACE OF CEDAR.

Consul Frank S. Hannah, of Magdeburg, furnishes the following information concerning a new German composition to take the place of cedar in the manufacture of lead pencils:

About two and one-half years ago a small company was formed to perfect and exploit an invention which, instead of making use of the expensive cedar wood, substitutes a compact mass, the main ingredient of which is potatoes. The invention has finally been perfected and the pencils are being manufactured in large quantities preparatory to being placed on the market.

I have seen and used some of these pencils, which, while slightly heavier, are the same in size, form, and appearance as those at present

in use, admit of sharpening a little more easily, and can be produced at a very nominal figure. A permanent company was founded in March at Berlin, acting under patents in fourteen countries, with a capital of \$154,700, of which \$95,200 represents the cost of the patents, while \$59,500 has been retained for a working capital. Of the working capital, \$19,040 will be used in erecting a factory, with six presses and a daily output of 48,000 pencils. The cost of manufacture, all expenses included—rent, light, power, wages, composition, lead, selling cost, etc.—is estimated at \$0.00928. A second-quality pencil will be made whose cost will be only \$0.00595.

At the estimated production of 48,000 pencils a day, three hundred working days a year, the yearly production would be 14,400,000 pencils. According to recent statistics the export from Germany to foreign countries equaled 15,166 tons, with the total number of pencils at 3,033,200,000.

The cedar wood used at present in the manufacture of lead pencils is expensive and the quantity limited, while, on the other hand, the cultivation of potatoes is advancing each year. For these reasons this invention may mark the beginning of a new era in the production of lead pencils.

COMMERCIAL ENTERPRISE.

GERMANY'S METHOD OF PROMOTING TRADE IN FOREIGN COUNTRIES.

Consul-General Richard Guenther writes from Frankfort that the German Government is being heartily indorsed for sending experts to foreign countries to study trade conditions. At the convention of the Associated German Machine Builders the following resolution was adopted:

This association has noticed with great interest the recently published report of the commission of experts sent by the Imperial German Government to Roumania in order to study trade conditions of that country. This association thanks the Imperial minister for taking up this course of sending abroad experts for the purpose of benefiting German industries, and it prays that the Government continue this course.

German trade papers in publishing the foregoing resolution also comment favorably upon this governmental move, and recommend that the Federal legislature annually vote grants for providing for the sending abroad of commissions of this kind.

Active German Shipbuilding.

Consul William Thomas Fee, of Bremen, writes that according to published statistics shipbuilding in Germany during 1906 showed a remarkable increase. The gross register tonnage of merchant vessels constructed, ocean steamers and sailing, river and special, was 367,820 in 1906, as against 277,731 in 1905. The tonnage of the war vessels constructed in 1905 was 30,630, and in 1906, 23,671. At the end of 1906 merchant vessels of the various classes aggregating 323,244 tons were under construction, and war vessels of a tonnage of 72,444.

UNITED KINGDOM.

THE COOPERATIVE MOVEMENT.

PROFITS IN MERCANTILE AND OTHER LINES FOR LAST YEAR.

Walter C. Hamm, consul at Hull, writing about the annual congress of the cooperative societies in Great Britain, calls attention to the following facts and figures, which he furnishes as to the operations of these societies for the past twelve months. They are taken from a bulky volume of reports, statistics, and accounts just issued by the combined organizations.

There were in existence in Great Britain in 1906 1,596 cooperative societies, 18 fewer than in the year before, and the 1,588 societies which have made returns had 2,332,754 members against 2,259,479 members in the 1,609 societies which made returns in the previous year. The share capital, sales, and profits for the two years were as follows, the pound being calculated as equal to \$5:

	1905.	1906.
Shares	\$145,210,100	\$151,280,045
Sales	470,987,570	480,668,755
Profits	52,290,815	54,879,975

By far the greater number of the societies are distributive, and of these the retail societies have a turn-over exceeding £60,000,000 annually, making profits which amount to about £10,000,000 per annum. The wholesale societies have sales approaching £30,000,000, but their share capital is comparatively small. The productive societies are much less numerous than the distributive, and the figures regarding them as to membership, shares, sales, and profits all show a decline on the year. These and other facts will be found in the following classified table:

Societies.	Year.	Members.	Shares.	Sales.	Profits.
Wholesale	1905	1,419	\$8,300,360	\$138,626,035	\$3,179,365
	1906	1,411	8,480,110	148,251,085	3,584,955
Retail	1905	2,153,185	130,385,870	305,484,955	49,785,190
	1906	2,222,417	136,752,940	316,768,860	49,861,250
Productive	1905	33,467	4,489,680	15,910,120	1,021,315
	1906	32,720	4,014,845	13,869,880	843,375
Supply	1905	69,896	1,868,895	10,451,945	269,965
	1906	74,611	1,885,730	10,172,620	255,270
Special	1905	1,512	150,345	564,515	21,980
	1906	1,595	155,420	606,140	30,125

The section of the statistics relating to cooperative farming shows that the purely farming societies hold only 501 acres, and employ a capital of \$16,885. They pay in rent \$1,734, and while the southern and western sections, respectively, make a profit of \$195 and \$835, the northern section returns a loss of \$35. But the wholesale and distributive societies also carry on farming. They occupy 9,281½ acres, pay \$61,190 in rent, and employ \$988,065 capital. The profits returned amount to \$29,220, and the losses to \$23,020. It is also noticed that under the auspices of the Agricultural Organization

Society the cooperative idea is making good progress among farmers and others engaged in working on the land, and at the end of 1906 the Agricultural Organization Society had 143 societies affiliated with it. The membership of these societies is about 9,000, and the turnover \$1,750,000.

It would be seen from this that cooperation is a success in Great Britain, although there are conditions favorable to such a result existing here which are not present in the United States.

PROSPERITY OF GLASGOW.

TRADE CENTER OF SCOTLAND—EXPORTS TO THE UNITED STATES.

Consul R. W. Austin, of Glasgow, in his annual report says that the year 1906 has been one of general prosperity to the people of Scotland, and this is especially true of that portion embraced within the Glasgow consular district, concerning which he writes:

The shipbuilding record is the best in years; the iron, steel, cotton, muslin, coal, chemical, shipping, and other leading lines all acclaim the same results—increased trade and better prices. The farmers have enjoyed a fair share of the improved conditions of trade and business, having had more than average crops and increased prices for their wool, hides, stock, cattle, and the various crops of fruit, grain, and vegetables. Being busy in the countless workshops located on the Clyde, in Glasgow, and many other smaller industrial centers, the people of this consular district have not only shared in the world-wide prosperity, in speeding their wares to the markets of distant lands, but have at the same time been liberal buyers of American produce and goods, and as a result there has been an increase in the imports from the United States.

EXPORTS TO THE UNITED STATES AND PHILIPPINES.

The declared exports from the Glasgow district to the United States in 1906 amounted to \$8,622,155, against \$5,712,826 in 1905, an increase of \$2,909,329. The 1904 exports to America amounted to \$4,629,292; hence Glasgow's sales in the United States nearly doubled in two years. The leading articles are shown in the following comparative statement:

Article.	1905.	1906.	Article.	1905.	1906.
Animals, live.....	\$25,815	\$61,853	Linoleum.....	\$27,732	\$36,854
Books.....	40,017	46,469	Machinery, etc.....	181,220	166,802
Brass.....	42,304	92,741	Muslin.....	341,128	537,682
Carpets, etc.....	47,895	50,307	Oil, creosote.....	83,076	155,806
Chemicals.....	279,380	1,087,040	Paper, etc.....	167,991	182,550
Coal.....	23,709	46,118	Pictures.....	24,306	9,581
Cotton goods.....	1,078,024	1,297,440	Pipes, clay.....	27,846	26,101
Fishing tackle.....	28,074	43,925	Provisions.....	36,566	61,043
Flax.....	106,181	73,669	Silk goods.....	31,613	34,064
Fur, hatters'.....	24,543	4,039	Thread.....	246,898	211,888
Glue, paint, etc.....	88,708	13,369	Union goods.....	88,103	120,461
Hides and skins.....	123,860	162,894	Whisky.....	627,971	720,984
Iron, pig.....	167,725	1,037,152	Wool.....	1,142,054	1,882,819
Iron and ironware.....	14,245	36,226	Woolen goods.....	32,117	119,441
Leather goods.....	19,967	23,865			

The exports from the Glasgow district to the Philippine Islands for 1906 show an increase over 1905 of \$453,533, or nearly 100 per

cent. The following table covers the exports to the Philippines for the two years mentioned :

Article.	1905.	1906.	Article.	1905.	1906.
Cotton goods	\$414,919	\$519,075	Provisions	\$1,696	\$3,680
Chemical	4,852	2,048	Thread	174,081	301,334
Fire clay goods		723	Whisky	18,613	39,214
Iron and steel	10,686	181,498	Sundries	366	5,677
Iron (pig)	4,290	3,188			
Machinery	42,925	56,564	Total	669,562	1,123,086
Oils and paints	2,182	10,200			

AMERICAN GOODS—MARITIME TRAFFIC.

There has been an improvement and increase in the sale of American goods in this district, except in the line of fresh, cured, and canned meats, which show a considerable decrease. While there are no official returns covering the imports from the United States, perhaps the largest increases are shown in knit underwear and nickel. Besides these articles there are large quantities of flour, wheat, corn, oats, lard, ham, bacon, lumber, cotton-seed products, hardware, typewriters, cash registers, and agricultural implements bought from the United States; also a large number of other articles.

During 1906 there were 205 vessels sailed from Glasgow and the two agencies, Greenock and Troon, for the United States, against 210 vessels in 1905. These ships carried from Glasgow 45,443 passengers, a gain of 12,981 over the previous year. About one-half of the number of emigrants were Scotch and Irish. During the year 294 emigrants were deported or returned for various reasons.

ADING BRITISH TRADE.

ADVANCES TO BE MADE TO INCREASE COMMERCIAL ACTIVITY.

Consul Thornwell Haynes, of Nankin, furnishes a clipping from an English publication of Shanghai, China, which contains the following dissertation on how to advance British trade:

We are pleased to note that the home authorities are waking up to the fact that besides an efficient navy and a reliable and well-organized army Great Britain needs in its struggle for existence an effective commercial army. The president of the local government board in a recent speech has indicated the lines on which advance is to be made.

The first advance is to be made in the consular service. British merchants complain of the consuls, both as not being sufficiently informed about the conditions of trade and as not giving as much help and encouragement as they might. The merchants and their mentors are, in short, out of touch. This defect is to be remedied in future by requiring the consuls to pass through the intelligence department of the board of trade, where they will come in close touch with the chambers of commerce, gain a general knowledge of the course of foreign trade, and learn the kind of information which our traders most require.

The second new move is an adaptation of the principle that "it is right to learn from the enemy." The board of trade intends accordingly to institute a series of special inquiries into the industries of foreign countries, and the first of these inquiries is already on foot in Germany. This is an excellent move and far better than to grumble at the success of our rivals and shut our eyes to the means by which success is assured. It is to be hoped that our innate conservatism will not prevent us adopting any hints that we may pick up.

A WIDE FIELD FOR THE CENSUS OF PRODUCTION.

A third move is the census of production, whereby more careful statistics are to be obtained of the proportion of consumption at home and abroad, of the

relation between prices charged in the country of production and the prices charged to outsiders; and, indeed, it is difficult to know quite where the field of this census will cease. Certain it is that the more knowledge the British manufacturer has of his rivals' prices, cost of production, cost of transport, variable and preferential rates, and the like, the better fitted he ought to be to meet his opponents in a fair field.

Lastly, the promise of a bill to be introduced during the present session for the amendment of the patent law will give widespread satisfaction in business and scientific circles. The injustices of which British inventors and traders complain are the result of cumbrous procedure and various legal judgments. The main evil, however, can be stated concisely. Under the existing law and procedure foreigners are able to take out British patents and to use them for the sole purpose of preventing anyone from setting up an industry in this country. The patent is taken out in Great Britain, and native enterprise is thus stopped. The foreign industry is created, and it is too late, even when the patent has expired, to start a successful rivalry. A leading authority on the subject has shown, further, that, owing to a strange development of legal doctrines, the definition of inventor is one thing for a native and another for a foreigner, with the result that "in certain circumstances the only way in which a British subject can obtain a valid patent is to betake himself abroad and present himself to the patent office in the character of an alien." The right principle is that any patent taken out in Great Britain by a foreigner must, to become valid, be worked in Great Britain. This is the intention of the law, but the existing machinery makes it impossible to carry on the intention. It is now proposed to simplify and amend the law so as to make the principle operative.

With these four powerful aids there should be less and less outcry about the unfair competition which British trade has to face.

METAL BEDSTEAD MARKETS.

ISLAND OF MALTA CALLS FOR ONLY THE CHEAP STYLES.

Consul J. H. Grout reports from Valletta that if properly introduced there should be a market at Malta for American-made iron and brass bedsteads and springs, concerning which he writes:

There seems to be a large demand for these articles here, judging from the quantities that have been continually arriving during the past years. American goods of this description are yet to be seen. Almost all of the beds and springs made of iron come from England, while that country and France seem to provide brass beds. No statistics are available as to the value of these goods imported here annually, they being exempt from duty, and, as far as it is possible to say, are likely to continue to be classed upon the free list. A prominent merchant estimates that the value may be roughly estimated at about \$25,000. Comparatively few brass bedsteads are used, the demand being for iron bedsteads of the cheapest description, costing \$2.59 each, c. i. f. Malta, less 3 per cent and 5 per cent. These are shipped in bundles, wrapped in straw, with burlap, thus saving much in the way of cost of packing. Cheaper goods can also be obtained, but the style of bedstead which has the largest local sale ranges in cost as stated. There is no reason why American bedsteads and springs should not find a sale here, provided that style and cost laid down were made to meet local taste and requirements.

REGISTRATION OF TRADE-MARKS IN MALTA.

NEW REGULATIONS PUT IN FORCE BY THE GOVERNMENT.

Consul John H. Grout, of Valetta, Malta, reports under date of May 14 that the following new regulations appertaining to the registration of trade-marks have just been put in force by a decree

published in the local government gazette. They may be considered as being in addition to previous existing regulations:

1. Any applicant for the registration of a trade-mark may be required to furnish, for the purpose of advertising his application, a block or electrotype (or more than one, if necessary) of the trade-mark, of such dimensions as may from time to time be directed by the comptroller, or with such other information or means of advertising the trade-mark as may be required by the comptroller; and the comptroller, if dissatisfied with the block or electrotype furnished by the applicant, may require a fresh block or electrotype before proceeding with the advertisement.

2. When an application relates to a series of trade-marks differing from one another in respect of the particulars mentioned in article 83 of ordinance No. XI of 1899, the applicant may be required to furnish a block or electrotype (or more than one, if necessary) of any or of each of the trade-marks constituting the series; and the comptroller may, if he thinks fit, insert with the advertisement of the application a statement of the manner in respect of which the several trade-marks differ from one another.

3. The blocks or electrotypes furnished must correspond exactly with the representations, must afford perfectly distinct impressions of the marks, and must be upon a scale sufficiently large to reproduce the marks faithfully; worn or mutilated blocks or electrotypes will not be accepted.

4. The largest space available for the insertion of any single block or electrotype is 7 inches broad by 10 inches deep.

When a block or electrotype exceeds 2 inches in depth or breadth, a charge for additional space will be made, at the rate of 2 shillings for every inch or part of an inch in depth or breadth beyond the 2 inches.

5. The blocks or electrotypes supplied for the advertisement of trade-marks can not in any case be returned to applicant.

BELGIUM.

PROGRESS OF TRADE.

A GROWING COUNTRY COMMERCIALLY—AMERICA'S SHARE OF EXPORTS.

The late Consul-General G. W. Roosevelt, of Brussels, in his annual review covering the commerce of Belgium for the calendar year 1906, wrote in part:

The importations in 1906 were valued at \$593,584,045, against \$561,618,227 in 1905, or an increase of 5 per cent. The exports during the same period amounted to \$471,148,126, against \$423,182,801 in 1905, or an increase of 7.1 per cent.

The exports from Brussels alone to the United States were valued at \$4,643,950, an increase of \$1,003,523 over 1905, the leading articles being shown in the following comparative statement:

Articles.	1905.	1906.	Articles.	1905.	1906.
Aniline colors	\$48,024	\$33,560	Linen goods	\$569,481	\$649,220
Animals, horses	130,219	86,599	Oil	35,698	37,756
Braid	16,161	6,490	Paintings	3,137	27,108
Cement	90,126	371,862	Paper (including wall)	32,256	45,616
Coke	68,484	81,968	Paraffin	9,949	23,461
Corsets	78,689	62,699	Rags, etc	64,553	73,906
Fire bricks		23,460	Rattan	12,582	20,064
Glass, etc	718,753	751,921	Rubber, and manufactures of	38,890	77,238
Gloves	96,749	275,379	Silk, artificial	41,863	167,893
Glue, etc	97,204	103,432	Skins	773,411	879,524
Hats, felt	17,079	23,505	Stone, flint	39,397	50,924
Hatter's fur	46,597	68,482	Vegetables	50,276	73,565
Lace articles	214,944	310,654			

The exports from Brussels to Porto Rico in 1906 amounted to \$207,464, of which the chief articles were: Building material, worth \$157,493; railroad material, \$34,598; electrical appliances, \$7,896; and automobile trucks, \$4,790. The exports from Brussels to the Philippine Islands were valued at \$50,233, and consisted of cotton yarn worth \$27,404; tram cars and parts, \$12,894; cashmere, \$4,438; and cement, \$3,141. The Charleroi agency in 1906 furnished the United States with articles worth \$1,953,352, an increase of \$548,833 over the amount furnished in 1905. The principal articles were: Glass, valued at \$1,657,834; cement, \$75,180; and steel products, \$133,541.

MANUFACTURE OF GLOVES DECLINING.

Glove manufacture has been on the decrease in Belgium during the past ten years. There are between 700 and 800 table cutters in Belgium, most of whom do their work in their homes and are paid by the piece.

About 4,000 glove sewers are employed, mostly in the provinces of the Flanders. These women are also paid by the piece, and their average earnings are from 19.3 cents to 38.6 cents per day. The cutters are paid according to the length of the glove—for four buttons 77.2 cents, and for each additional button or glover's inch about one-half cent. Dyeing is paid according to the size and quality of the skins. The average value of gloves exported from Belgium ranges from \$4.63 to \$7.72 per dozen in three and four button lengths.

The imports of gloves into Belgium in 1906 amounted to \$1,725,175, of which \$1,367,070 worth came from Germany. The exports of gloves from Belgium during the year amounted to \$3,092,654. England was the best customer, taking \$1,393,860 worth, Germany following with \$1,263,568 worth. The United States purchases amounted to \$275,379.

MOTOR TRADE—GLASS SYNDICATE—LEATHER GOODS.

The manufacture of motor cars is very active in Belgium, especially as concerns touring cars. For the last three years business houses have been making large use of motor cars for commercial purposes, and, it is understood, with success as regards cost of keeping and working capacity. Most of the cars in use are of Belgian and French manufacture. Motoring is increasing in favor, as the roads are fair, especially in the south. The most popular cars are those having two or four cylinders and from 10 to 50 horsepower. The duty on motor cars entering Belgium is 12 per cent ad valorem.

A syndicate for the sale of window glass in China has recently been formed in Charleroi and is at present working satisfactorily. The "Compagnie Internationale d'Orient" and two important banking firms of Charleroi are about to establish a large glass manufacturing company in Japan. The enterprise does not please the local glassworks' owners, as Japan is one of their best customers. They say that Belgian capital will help to kill Belgian trade in Japan.

Owing to the advance in price of all grades of leather, prices of manufactured goods were increased 10 per cent. Sales were slow, and in consequence hands were not occupied full working hours. A local syndicate in east Flanders organized a uniform wage for all hands of different categories employed in their shoe and boot factories.

METALLURGY—VINE CULTURE—MARITIME MOVEMENTS.

The activity in metallic and industrial machinery greatly increased during the last of the year, and work became more abundant and regular. In some parts of the country there was a lack of skilled labor which caused many factories to work overtime, and in some factories continuously. Motor building in the Ghent district was very active, as was evidenced by the rise in salaries. All big workshops had abundant work for home as well as for export trade.

The exportation of firearms to the United States, as compared with previous years, showed a decrease of about 75 per cent, which was fairly balanced by largely increased orders from South America. Carbines and revolvers were in great demand. High-grade shot-guns were little sought for. Sales were principally for export; the home trade demanded only a small supply.

In former times the vine was abundant all over Belgium and yielded very agreeable wine. Half the park of Brussels was once a vineyard. The history of vine growing is an interesting one, but it has declined, owing to the fact that foreign wines have been preferred of late years to the native product. The provincial council of Liege is endeavoring to stimulate the culture by making a present of 200 vines to anyone undertaking to cultivate them.

During the year 1906 10,247 vessels, of 12,945,856 net tons, entered the several ports of Belgium, against 9,257 vessels, of 11,615,856 tons, in 1905. The departures for 1906 were 10,239 vessels, of 12,904,877 tons, against 9,220 vessels, of 11,554,368 tons, in the previous year.

TRADE OF LIEGE.

THE UNUSUAL INDUSTRIAL ACTIVITY IN 1906.

The following report on the commerce and industries of Liege in 1906 was furnished by Consul James C. McNally, since transferred to another consulate:

Liege, being the manufacturing center of Belgium, contributed to a degree greater than for any previous years to the commercial prosperity of the Kingdom in 1906, which shows an increase of \$31,965,818 in imports and of \$47,965,325 in exports as compared with those of 1905.

The prosperity would have registered higher figures had it not been for the disastrous lockout in the cloth and woolen industries at Verviers. The iron and steel industry profited particularly from outside orders, and the mills and workshops were forced to the limit of their capacity. During the last half of the year orders for future delivery at a fixed price were refused, as the market had a strong upward tendency and prices varied from day to day. This condition was reflected upon the people in general, and the buying capacity being increased, foreign goods were more eagerly sought for than ever before. Many foreign business houses have been established during the year, and business is good in every branch.

While the firearms industry shows a decided increase throughout all its departments, a marked falling off with the United States has been severely felt by those who heretofore enjoyed that lucrative market. During the last six months of 1906 the firearms exported

to the United States were the smallest in value for any similar period in the last ten years. The general impression is that the American machine-made gun is being turned out at competitive prices to the exclusion of the Liege handmade product.

Some of the makers contend that this decrease was due to over-importations in 1905, and that when these are disposed of orders will be renewed; but my opinion is that the American manufacturers from now on will hold their market against the cheap variety of firearms heretofore exported to the United States in great quantities.

GUN BARRELS—CRYSTAL WARE.

While the exports of the completed firearm to the United States fell off, the gun-barrel business enjoyed a substantial increase. Orders, although sent with a stipulation that they could be canceled before delivery, indicating a weakness in the firearm industry in the United States, were nevertheless numerous and in good quantities. While there seems to be a general demand in the United States for the Liege gun barrel, I am informed that the best barrel-drilling machine is made in the United States, and that the particular advantage of this place is due to the price of labor and material.

The year has shown a considerable falling off in the demand for the Damascus barrel, and the steel makers claim that increased orders in their line is due partially to that condition. Many of the makers of the Damascus barrel are at present engaged in the manufacture of the steel variety.

The crystal-ware industry, practically represented by one manufactory, said to be the largest of its kind in the world, is in a most flourishing condition. Prices in 1906 were good, and the orders from all parts of the world keep the factory in operation night and day, which condition has been maintained for many years. The exports to the United States increased, and the outlook for 1907 is said to be most encouraging.

AMERICAN PRODUCTS IN LIEGE.

I am informed by a local horse dealer that there is a growing demand for the American horse, the importation of which ceased many years ago. The first importation in recent years is now due, and it is thought that future orders will develop a fair market. Not only draft horses but the carriage variety seem to be wanted. While the Belgian horse is elephantine in size and strength, he is provokingly slow and deliberate; besides his enormous appetite is said to lessen his commercial value. The hide of the Belgian horse usually weighs 60 to 65 pounds, and local tanners of these and other hides would like to deal direct with American importers.

American machinery commands a reputation for durability and thoroughness beyond any other in the local market, but the American dealer should have his machines in plain sight and be ready to demonstrate when called upon. In passing through one of the largest manufactories in Europe for guns, pistols, automobiles, motorcycles, etc., I was surprised to see the number of American machines in operation in the various departments. The foreman informed me that the American article enjoyed the best reputation in the establishment.

The universal prosperity throughout Belgium would seem to encourage foreign dealers to put their wares on the local markets. American products stand in good repute, and, with the same energy exerted in pushing them abroad as is noticed at home, the trade could be largely increased.

HOLLAND.

PURCHASES OF AMERICAN GOODS.

THOSE MOST IN DEMAND—HOW SALES MAY BE EXTENDED.

In his annual report Consul Frank D. Hill, of Amsterdam, dwells on the principal factors entering into the sale of American productions in the markets of Holland, calling attention to a number of leading articles. He writes:

Amsterdam, the nominal capital of the Netherlands and its business and banking center, is a fast growing city of about 600,000 inhabitants. Not only is it the focus of the commercial interests of the Kingdom in Europe, but it is also the leading entrepôt for Dutch East and West Indian business. So that it is the commercial metropolis not only of the 5,000,000 Dutchmen at home but also of the 40,000,000 of people of the Dutch East and West Indies.

The Dutchman is not an emigrating man. It is Dutch capital, and not the individual Dutchman, that expatriates itself. In the United States, according to the last census, there were only about 105,000 persons of Dutch birth, and a competent authority sets down the number of Netherlanders in the Dutch East Indies as fewer than 12,000. Clearly, then, Dutch influence has always been vastly out of proportion to the number of Hollanders that have gone overseas. That influence which has been so widely felt and which persists in the East, at the Cape, in Brazil, the Guianas, and the United States has been due rather to the efforts of the great trading companies, the East and West India companies of former days, and the Dutch Trading Company (headquarters Amsterdam, capital \$18,000,000), of our own time, and other powerful agencies domiciled in the Netherlands, than to the presence of any large body of Hollanders in foreign lands. [A table showing the amount of Amsterdam money invested in East Indian culture companies and a map giving the names and location of the tobacco plantations furnished by the consul are on file for commercial reference at the Bureau of Manufactures.]

SOME LINES OF LUMBER ARE DULL, WHILE OTHERS ARE IN GOOD DEMAND.

The year 1906 was not very favorable for the timber trade at Amsterdam, Dutch importers having large stocks on hand and contracts for further delivery; hence there was a very dull market.

The building trade was nearly at a standstill on account of the financial difficulties of a large concern with mortgaged houses and land; besides the high rate of money restricting building. At the beginning of the year contracting went on at a lively rate, but after

the spring was over consumption became dull and large holdings in first hands caused a great falling off in imports. Balks from north Europe were offered later in the year in very large quantities, and prices became still lower. In spite of this north European exporters could not place their unsold goods. Prices fell more and more, and balks are now to be had at figures not known for a long time. Prices for lumber advanced later in 1906 for delivery per f. o. w. (first open water) 1907, as Germany and other neighboring countries bought large stocks, but large importers here held aloof, having still large holdings from 1906 f. o. w. and summer imports. Low prices for balks make it possible to produce lumber at a lower figure here than that at which ready sawn lumber from Sweden, etc., can be bought. Pitch pine from the United States has been imported in much reduced quantities, as the very high prices demanded by exporters can not be obtained. Prices now quoted are somewhat lower, viz: \$18.69 for Mobile sawn timber c. i. f. of 30 cubic feet average, but even \$17.85 has been accepted. Prime pitch-pine lumber 11 inches and up is quoted at from \$96.48 to \$98.89 c. i. f. per Petersburg standard of 165 cubic feet kiln-dried saps; 1 by 6 at from \$67.53 to \$69.95 c. i. f. per Petersburg standard.

Very often pitch pine is now replaced by prime north Russian red-wood. Prices for American hard woods increased during 1906, which brings it about that more and more east European hard woods are imported to replace the same. Beginning 1906, American prime plain white oak was sold at about \$57, and is now quoted at from \$64 to \$65 per 1,000 superficial feet 1 inch c. i. f. Amsterdam. So-called oak car-bottom stock is in good demand, and offers are wanted for good stock for prompt and later delivery.

Imported lots of American ash and hickory were sold at low prices as a rule, as the quality of such shipments was very poor. For good quality there is some demand. Poplar and black walnut logs are in very good demand and have been sold at good prices. Offers have to be made for real effective measure of one-fourth string and not in American measure. Trials have been made of prime cypress lumber and same have given such good satisfaction that further business therein with the United States may be shortly expected.

DYESTUFFS AND CHEMICALS.

COURSE OF THE DUTCH MARKET—SUPPLIES AND CROPS.

Consul-General Soren Listoe, of Rotterdam, reviews the market conditions in relation to natural indigo, resin, turpentine, oil, and madder as reflected by the Dutch trade. He writes:

After many years of disappointment 1906 can point again to a strong rise in prices for Java indigo. This is the more remarkable as prices for the artificial product remained unchanged. In January, owing to the high prices at Calcutta for Bengal indigo, the Rotterdam supply of 705 cases on hand was soon sold at prices advanced from 4 to 8 cents. As expected, the arrivals of the year's crop were limited, as the cultivation has decreased considerably and many planters prefer to sell their crops on future delivery, but as most buyers only wish to buy on sample, which can be done by buying in the Dutch market, the demand continued.

At first it was uncertain what prices the buyers would be willing to pay, but when, in the months of June and July last, the demand became pressing and offers small, the newly arrived lots were sold by inscription at prices which far exceeded the expectations of the planters who had sent their products for sale here, and which were the highest prices realized this season. For the finest quality "warm process of manufacture" once even more than \$1.20 per one-half kilo (1.1 pound) was paid. During the fall, prices of the article could maintain themselves at the raised standard, and the buyers who had waited for lower prices were compelled in the end to accede to the prices asked.

SMALL CROPS AND STIFF PRICES.

The first-hand supply was entirely sold off, while the lots which were still to be had from the second-hand supply could be disposed of at very profitable prices. The quality was good in 1906 and the assortment, considering the small offers, satisfactory. As the lots bought were exclusively destined for purposes for which the article could not be replaced, little or nothing was heard in 1906 of the artificial product; but even for these special purposes the lots bought on the market did not suffice; hence the arrivals of the new crop are awaited with great interest.

The indigo crop acreage in the East Indies, which has been yearly decreasing, has now come to a standstill. Although the management of some plantations have deemed it best to stop the cultivation, others have, on the other hand, again commenced to plant. At present 35 plantation enterprises produce indigo. The arrivals, sales, and supplies in cases during the last two years, compared with those of ten years ago, were as follows:

Year.	Rotterdam.			Amsterdam.		
	Imports.	Sales and transit.	Supply December 31.	Imports.	Sales and transit.	Supply December 31.
1897	4,082	3,211	2,165	5,180	4,774	1,576
1905	1,154	2,468	378	893	1,431	327
1906	610	988	.....	425	752	.....

After the small crop of Bengal indigo was sold in January at Calcutta at augmented prices the article was for a long time influenced by reports that the next crop would be larger again owing to an increase of the cultivation. During the summer large inundations occurred, and owing thereto the crop did not amount to 40,000 maunds (maund=82.14 pounds), as originally estimated, but to only 24,000 maunds, while the 1906-7 crop is estimated at about 28,000 maunds. The consumers, who had waited long before purchasing, bought in the fall in London, where lots could be regularly disposed of at increased prices and where the supply is now small. The December prices at Calcutta were for the good to the fine qualities of Bengal and Tirhoot indigo from 140 to 170 rupees per maund, which is equal to 80 cents to \$1 per one-half kilo (1.1 pound) delivered in Europe.

The crops in British India in maunds were: In 1906, 24,000; 1905, 20,000; 1904, 35,000; 1903, 58,000; 1902, 43,100; 1901, 85,100; 1900, 111,700.

RESIN, TURPENTINE OIL, AND MADDER.

The consumption of resin in the Netherlands did not increase, but deals were readily made in the article, notwithstanding the continually high prices. The world's consumption was extraordinarily great, owing to which the quotations for the article could easily be maintained at a good standard.

Prices for turpentine oil remained high in 1906 and fluctuated but little. Purchases were constantly made in France. Not only in May and June, but even in the latter part of the fall, offers were made from that country below American parity.

The high prices for madder with which the year opened could be obtained during the whole of it, as there was a pretty regular demand for consumption and the small crop hardly could provide for same, although the consumption is very small. The old supply had been entirely sold out.

NORWAY.

THE KINGDOM'S PROSPERITY.

COMMERCIAL IMPORTANCE OF STAVANGER AS A FISH CENTER.

Consul B. M. Rasmusen reports on the commerce and industries of Stavanger, Norway, for 1906 as follows:

The principal industries in this district are agriculture, fishing, and shipping. The yield in farm products was below the average, notably barley, oats, hay, and potatoes, while that of rye was excellent both in quantity and quality. As a result of this shortage, there was an increase in the import of potatoes of nearly three times that of 1905, while the rye import was reduced by one-half.

The imports from the United States, such as corn, raw cotton, flour, farm machinery, oleomargarine, salt meats, sirup, wire, and cottonseed meal, all show increases. Of imports from other countries the greatest increases are in olive oil from France and Italy and tin plate from England.

INCONVENIENT SHIPPING FACILITIES.

There is much complaint at the length of time required for goods from the United States to reach points in southwestern Norway. There is no direct line between the two countries, except that the United Steamship Company's boats discharge passengers at Christiansand on trips from New York, but all the freight is carried on to Copenhagen to be shipped at convenience on the company's own steamers. It requires from two to five weeks for goods sent from New York to Stavanger via this line. The Cosmopolitan Line, which has a line from Christiania to Philadelphia, established recently, is now investigating the matter with a view of including Stavanger on trips both to and from the United States. The present condition is deplorable and ought to be remedied. There is no doubt but that the trade between southwestern Norway and the United States will increase considerably if better freight service is established.

RAPID GROWTH IN THE FISH-CANNING INDUSTRY.

The catch of spring herring was good, and the prices remained firm throughout the entire season, the profits going to the fishermen in-

stead of being divided between speculators as usual. The mackerel catch did not equal that of 1905 by a third, but the quality and price made up the deficiency.

The fish-canning industry has had a wonderful growth in recent years. The export of canned fish has increased 100 per cent during the last four years, and the sales to the United States have more than doubled in two years, amounting to \$862,578, a gain of \$122,969 over 1905. The largest item was sardines in oil, valued at \$376,655, the next being salted mackerel, worth \$307,716. The mackerel export to the United States fell off \$68,388.

There are twenty canning factories in operation, giving employment to 4,000 persons. The conserving of large quantities of fish and the increasing export of fish products has put new life into the fishing industry. The fishing fleet was augmented by the addition of new motor boats with modern equipment, and more people are engaged in the industry than ever before.

IMPORTS AND EXPORTS—NAVIGATION STATISTICS.

The leading articles of import into Stavanger during 1906 are shown in the following statement, in pounds:

Articles.	Pounds.	Articles.	Pounds.
Breadstuffs:		Iron and steel products—Continued.	
Barley	14,568,800	Wire	2,874,700
Corn	3,798,600	Oil	4,506,250
Flour, wheat, and rye	5,042,300	Provisions:	
Rye	1,657,800	Lard	689,500
Cement	1,799,980	Margarine	2,985,000
Coffee	1,275,100	Meat, salted	398,900
Cotton, and manufactures of:		Stearine	155,750
Raw	40,960	Sugar	2,910,900
Fabrics and yarns	208,250	Sirup	1,288,900
Feedstuffs	2,787,650	Tin plate	13,862,300
Fertilizers	4,965,000	Tobacco, leaf	94,450
Fruit	1,069,200	Vegetables	468,500
Iron and steel products:		Wool, and manufactures of:	
Bars	1,767,000	Raw	448,250
Machinery	97,260	Fabrics	80,600
Pig	1,425,000	Yarn	227,150
Rails	2,049,200		

The number of vessels entering at Stavanger in 1906 was 808, of 363,610 tons, and the number departed was 751, of 315,908 tons.

The chief exports were: Canned fish, 11,900,000 pounds; old metal, 2,902,000 pounds; fertilizers, 1,862,300 pounds; salted mackerel, 12,065 barrels; salted herring, 50,675 barrels; old rope, 166,525 pounds; clothespins, 43,925 pounds; and hides, 86,825 pounds.

The value of the exports to the United States during 1906 was \$874,013, the leading articles being: Fish valued at \$862,578; game, \$2,862; canned meat, \$5,613; and cheese, \$1,797. The exports of Stavanger to the United States more than doubled in two years, having been but \$334,024 in 1904.

The vessels entered at the port of Haugesund during the year were 510, of 182,876 tons, and those cleared numbered 722, of 224,009 tons. The imports into the agency of Haugesund during the year amounted to \$1,068,563, and the exports therefrom \$1,584,963. Of the exports \$1,285,594 represented sales of herring.

THRIVING PORT OF BERGEN.

LARGE SALES OF FISH AND FISH PRODUCTS—IMPORTS.

Consul F. S. S. Johnson reports on the trade of Bergen, Norway, as follows:

The declared exports from Bergen to the United States during 1906 were valued at \$791,906, of which fish constituted the principal item, being worth \$641,465. Cod-liver oil came next, with a value of \$107,531, followed with hides and skins worth \$10,635. The leading articles of import into Bergen from the principal countries making shipments to this place are shown in the following table, the quantities being given in kilos of 2.2046 pounds:

Countries.	Breadstuffs.	Coffee	Provisions.	Sugar.	Tobacco.	Wine.
	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>
United States	1,596,700		485,131			1,404
Denmark	3,125,641	101,602	659,823		317	27,374
Germany	31,525,196	1,885,992	645,760	64,268,366	117,290	40,602
Netherlands	3,025,510	425,871	22,149	352,799	4,522	521
Belgium	1,612,022	106,796	58,129	134,573		4,083
Great Britain	2,506,233	73,585	1,319,458	485,371	4,965	106
Russia	144,190,824		16			

The exports from Bergen consisted chiefly of fish and fish products, which amounted during the year to 243,953 barrels of herring, roe, etc.; 40,321,526 pounds of dry, klip, and other fish, and 47,292 barrels of cod-liver oil. There was also exported 25,645 barrels of herring and 753 barrels of roe, the product of Iceland. The other articles of export consisted of cheese, skins, butter, and bran.

ITALY.

AMERICAN TRADE IN PIEDMONT.

OPPORTUNITIES FOR THE ENLARGEMENT OF AMERICAN TRADE.

In the following review of the commerce and industries of Piedmont in 1906 Consul Albert H. Michelson, of Turin, points out many openings for the increase of American trade:

Throughout this Italian Province of Piedmont 1906 was a year of unexampled prosperity, in the face of the great strike of the longshoremen at Genoa, which for over a month blocked that chief gateway of the province, and of the railway congestion. Despite the enormous progress throughout the province, and indeed throughout Italy, in the use of hydraulic power, an increase in the imports of coal reveals a commercial and industrial situation of considerable interest, and one of which numerous classes of American industry can take advantage. The imports in 1904 were 5,904,578 tons; 1905, 6,437,539 tons; 1906, eleven months, 7,118,536 tons. Practically all this coal came from England. In drawing the attention of American coal dealers and mine owners to this fact, their attention is likewise directed to the important ore deposits of Italy, especially in the island of Elba, and to other and unexploited iron deposits in the island of Giglio and in the Tuscan County of Grosseto. It is suggested that the importation of Italian ores into the United States would perhaps furnish a return freight permitting American coal to compete successfully in Italy with that of England.

The prices of coal on trucks in Genoa in December, 1906, per ton of 2,204.6 pounds, were as follows: Cardiff best, \$6.60; Cardiff seconds, \$6.43; Newport, \$6.24; Newcastle, \$5.64; best Elb, \$5.47; New Pelton, \$5.44; Atlantic bricks, \$6.63. Coal for gas engines, etc.: Large merchant, \$6.59; large picked, \$7.73; egg, \$8.53; nut, \$8.87; pea, \$8.18.

Among the important industries of the province are the manufacture of automobiles, cotton, woolen, and silk goods, jute and hemp products, gloves, paper, glass and glassware, buttons, matches, hats, and shoes. Leather is also tanned in large quantities, and the manufacture of furniture and of chemical products, including fertilizers, is carried on on a large scale.

In area and population Piedmont is somewhat larger than the State of Massachusetts. In its variety of manufacturing interests it is somewhat like that State, and, with Lombardy, is the greatest industrial region of Italy.

TRADE WITH AMERICA.

The following table of principal imports into Turin in 1906 shows the small share of the United States in this trade:

Articles.	Total imports.	Imports from the United States.	Articles.	Total imports.	Imports from the United States.
	<i>Pounds.</i>	<i>Pounds.</i>		<i>Pounds.</i>	<i>Pounds.</i>
Colors	43,931	.....	Paper and paper ware	288,191	.....
Cotton goods	44,496	.....	Railway rolling stock	546,205	.....
Electrical goods	54,157	.....	Rubber goods	157,499	798
Furniture	194,645	4,353	Shoes	2,729	648
Instruments	253,606	345	Steel rails	6,576,113	.....
Iron piping	632,881	.....	Varnish	19,292	1,793
Leather	87,788	271	Wheat	194,113	.....
Machines and machinery	5,191,634	3,803	Total	14,505,202	12,011
Oils	217,918	.....		

The following is a list of American products suitable for import into Piedmont: Apples, canned goods, bolts, nuts, metal fittings, etc., agricultural and industrial machinery, structural steel for transmission towers, raw cotton, cereals of all kinds, leather and skins, oil in casks, paints, shoes, wall paper, wood and timber, etc.

Talc is the chief mineral product of the district exported to the United States. The decrease in the amount exported in 1906 as compared with 1905 is a matter of some surprise. The growing demand for this article in the United States, its possibilities when applied to switch-board construction, and the numerous inquiries received at this consulate concerning it all pointed to a contrary result. The following statement shows the exports from Piedmont to the United States for the years ended June 30, 1905 and 1906:

Articles.	1905.	1906.	Articles.	1905.	1906.
Automobiles	\$124,556	\$255,718	Hair, human	\$24,029	\$28,535
Buttons, porcelain	6,831	2,927	Hats, felt chiefly	25,484	31,067
Canned goods	10,941	20,060	Jewels, watch	25,799	19,113
Cheese	15,497	11,866	Plumbago	6,578	5,456
Chestnuts	17,843	28,567	Silk, raw	382,099	303,535
Clover seed	2,412	12,549	Talc	29,728	25,956
Cotton manufactures	5,249	7,687	Tartar, crude	59,176	56,778
Fur waste	5,096	3,758	Vermuth	352,877	362,850
Furniture	3,722	2,383	Wines	24,443	29,504
Gelatine	15,502	875	All other articles	11,584	12,238
Glue	14,756	5,460	Total	1,220,068	1,320,606
Gluestock	9,928	63,203			
Glycerine, crude	45,757	29,897			

UTILIZING WATER POWER.

Paradoxical as it may appear, the rapid development of hydraulic power in Italy, and especially in Piedmont, largely accounts for the heavy increase in importations of coal. The water power of Italy, and especially of Piedmont and the North, is derived from mountain torrents, the flow of which has wide variations, dwindling frequently to almost nothing during the winter months. Power stations are therefore almost invariably fitted with auxiliary steam or gas engines, which not infrequently furnish the greater part of the power developed. During the six years ending with 1904 the new hydraulic power developed for purely industrial purposes, in a district of which Piedmont may be considered one-third, was 100,000 horsepower, or about 17,000 horsepower per year. The average price of this per horsepower per year was \$43.50. Since 1904, however, the new power developed for industrial purposes has probably increased twofold, while that developed for agricultural uses has likewise remarkably increased. The power employed for agricultural purposes in Italy was 300,000 horsepower in 1898; to-day it is double that amount.

PIEDMONT'S POWER OPPORTUNITIES OF INTEREST TO AMERICANS.

This activity in the development of hydraulic power has its center in Piedmont, just as Piedmont, with its estimated available 616,436 horsepower, offers a scope twice greater for such development than any other Italian province. Its proportions may be more clearly realized when it is stated that in the month of December, 1906, twelve concessions, totaling over 70,000 horsepower, were either accorded, requested, or about to be exploited. Besides these, five other concessions of greater or less importance are mentioned, the horsepower of which are not given. It may also be stated that in 1905 Italy already stood next to the United States and Canada in the development of hydraulic power.

This great and comparatively recent activity in the production of power should have the careful attention of such Americans as are in a position to profit thereby. Among these should appear makers of steel towers or poles for carrying transmission cables, makers of insulating apparatus and patent switch-board appliances, builders of dynamos and motors, and possibly makers of aluminum transmission cables, although it should not be forgotten that there are large aluminum works at Shaffhausen, Switzerland. In connection with the application of water power to agricultural uses, the attention of American manufacturers of screw wheels is drawn to the advantages that Piedmont offers as a field of exploitation.

NEW PROJECTS.

The projects of great importance to the province took shape last year. One of these will give to Turin an international exposition in 1911, in commemoration of the fiftieth year of Italy's existence as an independent kingdom, and the other a new door to France by a tunnel under Mont Blanc. The exposition of 1911 should have the careful attention of numerous American business houses. The project for the piercing of Mont Blanc is of great moment. It will open up a most inaccessible and interesting portion of the province. Apart from its incalculably important influence upon the commerce

and industries of all Italy, it is expected to divert into one of the most lovely portions of the Italian Alps, the Valley of Aosta, that great majority of pleasure seekers for whom the mountains along the Swiss-Italian border are barriers.

Work upon the other tunnel, which is to couple Turin with the Riviera, has not yet been begun. The railway line between Cuneo and Ventimeglia, by which it is approached on the Italian side, is, however, practically completed.

Turin took its first important step in municipal ownership on January 1, 1907, when the power plants, transmission lines, and rolling stock of the Upper Italy Tramway Company of Turin became the property of the city at a cost of \$4,200,000. Collective ownership and operation is being applied to a steadily increasing number of industries with success. The progress in this direction by nonpartisan cooperatives for the production and sale of wine is especially marked and is stimulated by important Government subsidies. Of the cooperatives of Turin, the Alleanza Cooperative Torinese is the largest. The sales of this cooperative during 1905 amounted to \$867,701, and during 1906 to \$949,560. Its membership is 10,551. During the year the much discussed cooperative bakery of Turin was completed and work in it begun. It has a productive capacity of 60,000 pounds of bread per day.

LOMBARDY BEVERAGES.

A THRIVING INDUSTRY—SHIPMENTS TO THE UNITED STATES.

Consul J. E. Dunning, of Milan, transmits the following report prepared by Michael Siersdorfer, jr., concerning bitters and liquors in Lombardy:

In the last seven years the bitters and liquor industry has grown to be one of the most important industries carried on with the United States. In 1900 the value of the shipments was \$50,723; in 1905 they amounted to \$204,194, and in 1906, \$316,726. South America imports almost the same quantity as the United States, the stock being consumed by Italian residents of both countries. Shipments to the United States go to New York, San Francisco, Chicago, Pittsburg, and other American cities where Italian colonies are established. The trade is an interesting illustration of the amount of European goods consumed by Italians who have emigrated to the United States, but who carry their national appetites into their new home. The great increase in the industry is due entirely to this growing Italian emigration and to extensive and well-planned advertising in the American newspapers.

The price of bitters has for years remained stationary, but from now on, at the expiration of contracts made with the various Milan exporters, it is expected to rise about 10 per cent on account of the increase of prices of raw material, wooden cases, bottles, and loading, and also because of the numerous recent labor movements in Italy. Bitters are manufactured in Milan, and are composed of an infusion of herbs, with an added percentage of alcohol and sugar, to be consumed as a beverage. The outlook for the trade in the United States is favorable, as the Italian exporters generally expect to extend it among Americans generally. The bitters sell wholesale for 29 cents

per pint bottle, first quality, and 43 to 48 cents per quart bottle, second quality.

A small quantity of other Italian liquors of various names is also shipped, the principal varieties being effervescent cordial, Italian "grappa," or brandy, anesone, vermouth, cognac, extract of mandarines, bitter felsina water, China root, and extract of tamarinds.

Exports from Rome to the United States.

Consul-General Hector de Castro furnishes the following statement showing the exports declared at Rome for the United States during the calendar year 1906:

Article.	Amount.	Article.	Amount.	Article.	Amount.
Antiquities.....	\$4,568	Lace.....	\$1,685	Plaster casts.....	\$2,382
Artichokes.....	1,695	Linen.....	674	Sienna earth.....	12,663
Books.....	3,276	Macaroni.....	564	Silk and velvet.....	8,772
Bronzes.....	15,422	Marbles.....	135,963	Silverware.....	2,513
Cheese.....	760,388	Meat extracts.....	789	Terra cotta.....	402
China.....	749	Mosaics.....	1,009	Wine.....	809
Church goods.....	4,200	Violin strings.....	1,334	Sundries.....	739
Embroideries and flags	260	Olive oil.....	678		
Furniture.....	11,460	Paintings.....	189,208	Total.....	1,194,968
Hides.....	22,086	Photographs and			
Household goods.....	10,345	postal cards.....	320		

FRANCE.

BILL POSTING IN PARIS.

GOVERNMENT REGULATION OF PUBLIC ADVERTISING DISPLAYS.

Responding to a Pennsylvania request for information concerning the regulations in Paris of posters and billboards as means of public announcement, the tax assessed thereon, and the use and official control of electric signs, Consul-General Frank H. Mason reports as follows:

The first enactment relating to the subject is a law, dated July 28, 1791, which is still in force and prescribes that only a Government poster or announcement may be printed on white paper. All others must be on colored papers—red, blue, yellow, etc. Every poster or other announcement painted, printed, or otherwise delineated upon a wall, building; or upon canvas or other sustaining device, is subject to a yearly tax as follows: In communes of less than 2,500 inhabitants, 12 cents per square meter; in communes from 2,500 to 40,000 inhabitants, 13 cents; in cities over 40,000, 20 cents, and in Paris, 30 cents per square meter. This is for business or other announcements of more or less permanent character.

SECURING OFFICIAL PERMISSION.

Temporary "affiches" or posters are subject to a stamp tax according to size from 2 to 6 cents per sheet. This is attached either in the form of stamped paper on which the revenue stamp is applied to the sheet before being printed in such way that the stamp is can-

celed by the text being printed over it, or it may be attached adhesively afterwards and canceled by a rubber stamp provided for that purpose.

But before being publicly displayed each poster is required to be presented in duplicate at the office designated for that purpose, dated and signed either by the person in whose interest it is prepared or by the billposter who is charged with posting the same. Such antecedent declaration must state fully: (1) The text of the poster; (2) the name, surname, profession, and domicile of the person in whose interest it is to be displayed; (3) the dimensions of the poster in square meters and fractions thereof; (4) name, surname, and domicile of the billposter who is to post it in public; (5) the number of copies to be posted; (6) precise information as to the streets or squares, houses, or other constructions on which the poster is to be displayed, and (7) the length of time during which it is to be kept in view. One copy is filed at the office of registration, the other—signed and stamped by the official in charge—is returned to the applicant.

CONTROL OF ADVERTISING EXHIBITS.

It will be obvious that a system so rigid and elaborate as this gives the authorities of every village and commune in France absolute control of all posters and announcements displayed in public places, and practically suppresses the abuses which prevail in that respect in certain other countries.

No one is permitted in France to deface streets and public places with crude, ostentatious announcements of his business or other subject. Billboards are infrequent in Paris, and are generally built permanently into a wall, where they are taxed according to their superficial area.

When a building is in construction and board screens are erected to shield the public from dust and other annoyance, such temporary screen will soon be covered with posters of amusements and other business, but each poster so displayed has been previously submitted to the authorities, a license obtained, and each sheet bears the canceled revenue stamp, according to its size.

The department stores and other large popular retail establishments have permanent spaces in the stations of the Metropolitan subway, and their colored posters which are there displayed are always in good taste and often interesting as works of decorative art.

The walls of market houses bear permanent framed billboards for the display of administrative announcements. Agencies for the sale of theaters, opera, and other amusement tickets are permitted to display colored announcements of such performances inside their windows as posters, but the promiscuous placarding of patent medicines and drinks on houses, fences, and dead walls is not permitted in this country. An owner has only to write "Défense d'afficher" (Forbidden to stick bills) on his property and the law will protect him from such desecration.

FOUR KINDS OF ADVERTISING STRUCTURES.

There are in Paris four classes of kiosks, or street structures, which are devoted to advertising or bill posting, as follows:

1. Round towers, known as the *Colonnes Moris*, made of wood

and used mainly for posters of theaters and other amusements. This is the oldest form of kiosk in Paris, and comparatively few of them are now in use except on the leading boulevards and avenues.

2. The "Poste de vigie," or policeman's kiosk. This is a hexagonal kiosk used as a shelter by the policeman whose post is adjacent to the more important cab stands. Its panels of wood or glass are used for the more permanent class of business advertising, which is printed on the glass or posters covered by glass frames.

3. The news-stand kiosk serves as a shelter and depot for a dealer in newspapers and magazines, whose stock is usually displayed on shelves or tables under a tent or awning set up outside the kiosk. Paris is the paradise of newspaper venders, and kiosks of this class are common throughout the city. They are substantially built, and their panels serve for the permanent display of a large variety of advertisements.

4. Finally, there are the street urinals for men, which are built of iron with interior slabs of slate. They display poster advertisements of patent medicines and various other subjects, and although not ornamental, are considered useful, through primitive concessions to public necessity.

Electrical signs are permitted and used to some small extent in Paris, but not so generally as in Berlin, London, and some other European cities. For each sign of this class of public advertisement a special permit must be obtained from the prefecture, and the tax thereon is regulated by the size and character of the sign to be displayed.

MARSEILLE'S FOREIGN TRADE.

PRODUCTION OF LEADING INDUSTRIES—IMPORTS AND EXPORTS.

Consul-General R. P. Skinner, in his annual review of the commercial and industrial life of Marseille, furnishes the following:

The industries of Marseille exceed 700, representing 80 specialties, with a total annual production of \$200,141,000. The chief industries contributing to this output are: Milling, \$33,770,000; oil, \$28,950,000; clothing, \$16,400,000; sugar, \$15,630,000; metallurgy, \$13,510,000; soap, \$10,610,000; chemical products, \$8,560,000; lead, \$5,790,000; jewelry, \$4,630,000; and candles, \$4,440,000.

The total imports into Marseille, in tons of 2,204 pounds, during 1906 amounted to 3,311,172, and the exports therefrom to 2,375,665 tons, consisting of the following principal articles:

Articles.	Imports.	Exports.	Articles.	Imports.	Exports.
	<i>Tons.</i>	<i>Tons.</i>		<i>Tons.</i>	<i>Tons.</i>
Animals, living	45,985	1,998	Lumber and woods	94,508	19,698
Animal products	112,086	44,915	Metals	108,563	85,900
Beverages	98,436	64,040	Oils	61,536	48,397
Carriages, etc.	16,300	12,045	Paper, etc.	685	12,462
Cereals	992,540	376,770	Pottery, glass, etc.	2,696	72,575
Chemical products, etc.	35,342	106,351	Stones, earths, etc.	29,049	1,061,953
Coal, coke, etc.	937,122	.....	Thread	1,086	3,546
Fruit and seeds	482,009	62,792	Tissues, including cloth, etc.	11,289	28,524
Furniture and woodwork	4,612	16,467	Vegetables, etc.	51,206	108,275
Iron and steel manufactures	8,692	39,056			

The declared exports from Marseille to the United States during the calendar year 1906 were valued at \$6,947,306, the principal articles being:

Almonds	\$268, 140	Oils	\$907, 848
Brass scrap	28, 944	Paper	23, 651
Cement	50, 216	Rags	48, 885
Drugs, crude, etc.	159, 779	Rope, old	66, 813
Fruit, preserved	191, 494	Ramie	28, 646
Gluestock	80, 788	Skins	1, 930, 367
Glycerin, crude	802, 751	Soap	76, 514
Hair, animal	92, 466	Tartar, crude	25, 751
Hides	100, 491	Vanilla	35, 600
India rubber	25, 950	Vermuth	207, 332
Macaroni	76, 562	Walnuts	218, 232
Mineral water	18, 666	Woods	89, 879
Ocher	86, 667		

INCREASED COST OF LIVING—NAVIGATION—AGENCIES.

The cost of many articles of food increased considerably during the past decade, among the articles being the following, the price representing 2.2 pounds: Bacon, salted, 46 to 48 cents; beef, ordinary cuts, 42 to 48 cents, and ham, 46 to 52 cents. During the decade the price of chicken increased from 68 to 77 cents each, and eggs, per dozen, from 23 to 34 cents.

Marseille retains its preeminence as the first port of France. During 1906 the total tonnage of ships that arrived at the port was 6,280,823, and of those that cleared, 5,697,738 tons. The total for France was 23,858,028 tons arrived and 17,866,503 tons cleared. In arrivals at Marseille, England led, with 899,173 tons; followed by British India, with 557,528 tons; Russia (Black Sea), 439,718 tons; Italy, 339,807 tons; Japan, 299,536 tons; Turkey, 264,567 tons; United States, 232,146 tons, the remainder being distributed among all other countries. Of the tonnage cleared, England took 1,192,034 tons; Italy, 429,619 tons; Spain, 295,302 tons; British India, 258,232 tons; Russia (Black Sea), 230,308 tons; Egypt, 229,481 tons; Turkey, 224,950 tons; United States, 146,521 tons; Argentina, 145,590 tons, and all other countries the remainder.

Consular Agent C. D. Hagelin advises that the imports into the Certe agency for 1906 included petroleum amounting to 58,789 tons; natural phosphates, 55,032 tons; oak staves, 37,527 tons, and lumber, 20,361 tons. Of these, the United States furnished 40,605 tons of petroleum, 20,229 tons of phosphates, 9,545 tons of oak staves, 762 tons of lumber, 3,050 tons of sulphur, and 11 tons of lubricating oils. The declared exports to the United States amounted to \$1,220,193.

At Toulon Consular Agent B. A. Jouve states that the declared exports to the United States during the year were valued at \$243,904, consisting of the following articles: Bauxite ore, \$55,787; bulbs, \$126,505; corkwood, unmanufactured, \$26,476; immortelles, \$30,198; household effects, \$4,826, and preserved vegetables, \$113. There was also exported from the seaport of St. Raphael 12,000 tons of bauxite and corkwood to the United States.

DISCRIMINATION AGAINST THE UNITED STATES.

Trade with America is as satisfactory as it can be under the fiscal system now prevailing in France, by which importations from the

United States are taxed at a rate of duty in excess of that imposed against the goods of the other great commercial nations. Though this artificial obstacle to the extension of American trade is troublesome, the most difficult obstacle to eliminate is the general unwillingness of the individual American to interest himself in the export business. To put the matter concretely I quote from a letter which I have received from a French dealer in leather, as follows: "I want * * * 's leather, but he has a general agent at London who has appointed * * * his general agent at Paris, who has appointed * * * his general agent at Lyon, and I must pay these people their commissions before I can think about my own."

Occasionally news of a better sort comes to hand, as witness the following paragraph which I take from a letter received from one of the most important producing concerns in the United States: "We may tell you that we have recently withdrawn our agency from * * * and that our interests will be looked after in the future by the manager of our own office at * * *. We hope to inaugurate a more systematic plan for working the trade of France than has ever before been carried out."

SWEDEN.

COMMERCE OF GOTHENBURG.

INDUSTRIAL ACTIVITY—IMPORTS AND EXPORTS.

Consul R. S. S. Bergh, in his annual report covering the commerce and industries of Gothenburg, Sweden, says in part:

During the year 1906 the development of the city continued. Still there are many plans not yet carried out, especially for the reconstruction of the harbor, on which only partial improvements have been made, among them continued dredging of the main entrance channel to a depth of 7 meters (about 23 feet) and extending up to the pier. Two electric tramways, each about 3 or 4 miles long outside the city limits, are nearly finished. The new railroad through the province of Bohuslän will be opened for traffic soon, although the bridge over the Göta River is not finished.

With reference to the building industry within the city, it may be mentioned that a new county prison has been built, a new linoleum-carpet factory is under construction, also new shipyard buildings, etc., as well as several large private dwellings. In this we note that iron and cement constructions come more and more in use. The fort just outside the harbor will soon be finished and some of the guns have already been mounted in their turrets. It has been decided that the city shall build a new electric power plant, at a cost of \$1,547,700, which is to transform and distribute electric energy from the waterfalls at Trollhättan when the generating plant there is finished, and is also to serve as a reserve plant in case the transmissions should get out of order.

The following comparative statement shows the principal imports into Gothenburg for the two years mentioned:

Articles.	1905.	1906.	Articles.	1905.	1906.
	<i>Pounds.</i>	<i>Pounds.</i>		<i>Pounds.</i>	<i>Pounds.</i>
Broadstuffs	111,491,287	86,525,569	Liquors	^b 277,440	280,314
Canned goods	660,528	439,178	Oil	66,426,925	77,964,364
Cattle feed	120,517,982	141,129,045	Provisions	9,443,271	10,699,571
Cotton, raw	^a 8,315	10,141	Textiles	5,625,767	5,917,176
Glass	591,138	839,224	Tobacco, etc	1,708,502	1,035,113
Leather	549,506	607,220	Turpentine	271,000	320,023

^a Tons.

^b Gallons.

The principal exports, in pounds, in 1906 were: Butter, 13,399,505; fish, 22,981,511; hides and skins, raw, 5,284,822; paper, pasteboard, etc., 193,027,118; textiles, 1,131,720; glassware, 25,329,354; calcium carbide, 8,775,940; cranberries, 3,381,035; grain, 4,034,062, and hulled rice, 6,788,531. There were also exported wooden ware, including timber, etc., amounting to 16,646,838 cubic feet, and \$1,556,594 worth of other woods.

EXPORTS TO AMERICA—EMIGRATION.

The declared value of the exports from Gothenburg to the United States during 1906 was \$1,665,567, an increase of \$245,478 over 1905. The leading articles were: Fish, valued at \$181,421; hides and skins, \$328,970; iron and steel, \$453,518; matches, \$129,486; paper, \$189,403, and wood pulp, \$269,931. The value of the exports from the Malmo agency was \$274,694, an increase of \$79,905 over 1905.

The fisheries of this county are the most important in the whole country, the value of the catch during the season of 1905-6 amounting to \$1,494,850. The fishing places west of northern Denmark, outside of Norway and near the Shetland Islands, were visited by 1,127 men and 123 vessels from this county, which does not include those who fished for herring near Iceland and those who fished in the Cattegat, near the Swedish coast. During the season twenty fishing cutters of English type were bought, making a total of 199, besides a large number of common decked fishing boats and six steam trawlers. The fishing has been good, but improved methods and the increased use of motors in the boats has done a great deal toward bringing good results.

According to published statements the number of Swedish subjects who emigrated in 1906 was 18,687, being an increase over 1905. This number includes only those who embarked at Gothenburg, Malmo, and Stockholm. As the population in Sweden is small in comparison with the size or area of the country, the continuous emigration is considered a serious problem; societies and authorities are therefore trying to find out the real causes of said movement, and certain persons have been selected to follow the emigrants to America and during the voyage question the emigrants on the subject. But it appears that the immigration is also increasing. Not counting the imported contract laborers from Hungary or other countries adjoining thereto, or the immigrants from Finland and Russia, it seems also that the number of emigrants returning from America is increasing. There appears to be several reasons for this. Some return for their health, others get homesick, and others again return because

while in America they made or saved enough money to last for the rest of their lives. Of the last class a good many buy farms or start in business.

FOREIGN POPULATION—DEVELOPING RESOURCES.

The Central Bureau of Statistics has made an investigation as to the number of foreigners in Sweden. It appears that there are about 8,000 Norwegians, 7,000 Danes, 6,600 Finns, 5,000 Germans, 5,000 Americans, and 1,500 Russians. The fact that the number of persons in Sweden born in the United States has, during ten years, increased from 1,500 to 5,000 is explained by the increased return of emigrants who bring with them their children born in America. It is doubtful whether the statement is reliable, as it is often rather difficult to reach a conclusion as to the citizenship of certain persons, particularly of returning emigrants and their children.

The conditions in general indicate activity and progress. The profits of the Government railroads are still increasing, and the proposed adoption of hydro-electric power for the railroads will probably be a fact within a few years; such power is already used on a short line in the Stockholm district. According to a plan worked out for the southern part of Sweden, the waterfalls at Elfkarleby, Motala, Hammarby, Trollhättan, and Karseforsen should be put in order for such purpose, and this is calculated to cost about \$16,281,000 to \$18,961,000, to which comes the cost of the electric locomotives. The power plant at Trollhättan, for general use, is calculated to cost about \$2,948,000, and the construction work is now going on.

The Government telegraph works are to adopt type-printing apparatus for the telegraph service between Gothenburg and Stockholm, and for the telephone service in the larger Swedish cities the central-battery system is to be used, and an officer is now studying the system in Germany, Switzerland, France, Belgium, and Holland.

EXPORT PROMOTION—AMERICAN PRODUCTS.

The efforts to reach and extend the markets for Swedish merchandise in China, Japan, Siam, South Africa, South America, Australia, etc., continues. There is now direct steamship connections between Gottenborg and those countries, and new steamers are to be bought or built. The Government is assisting the shipowners partly by subsidies and partly by loans on easy terms. Such loans are also furnished to fishermen for purchase of motors, better boats, and better fishing gear. Two Swedish concerns have started herring fishery off the coast of Iceland, which also is a sign of the general activity. Furthermore, the old plan for enlarging the canal and locks at or near Trollhättan is under improvement. If the plan for reduced railroad freight rates for export goods is adopted, it will surely to some extent increase exports from this city. Factories for the production or canning of berry juices, jellies, fruit preparations, etc., have been built; also for the production of milk flour. A company has also been organized, partly with American capital, for the manufacture of radiators, etc.

It is important that in such times of activity American manufacturers and exporters should be properly represented here by active agents who can watch opportunities for business. Furthermore, that such agents, when practicable, should make easy terms, be furnished

the Swiss export trade will be greatly increased by the introduction of machinery for the manufacture of new articles, such as electrical and other machines, and the introduction of the latest machinery for the manufacture of electrical machinery.

It is not probable that there will be any introduction of electrical machinery in such articles. The Swiss export trade will be greatly increased by the introduction of machinery for the manufacture of new articles, such as electrical and other machines, and the introduction of the latest machinery for the manufacture of electrical machinery. The Swiss export trade will be greatly increased by the introduction of machinery for the manufacture of new articles, such as electrical and other machines, and the introduction of the latest machinery for the manufacture of electrical machinery.

SWITZERLAND.

AMERICAN EXPORTS GROWING.

INCREASED BY TWO AND A HALF MILLION DOLLARS LAST YEAR.

In reviewing the growth of exports from Switzerland to the United States for the forty years up to and including 1906, Consul R. E. Mansfield of Geneva states that they show a continued increase. He says in part:

In 1867 the Swiss exports to the United States amounted to \$25,149, increasing \$120,000 the next year, but receding to less than \$2,000,000 per annum during the next two years. By fluctuating they then passed the \$2,000,000 mark in 1872, reaching \$23,556,500 in 1885, and \$23,770,000 in 1896. By classification there has been in the past twenty years a marked increase in some instances, and a decided decrease in other lines. Silk and silk goods have been about stationary, the Swiss sales to America last year amounting to \$4,177,125, against \$4,461,500 in 1887. Cotton tissues and knit goods made the high record in 1896 with \$1,928,548 in sales, having been built up from \$217,406 in 1887. The Swiss embroidery makers have enjoyed a greater trade growth in the United States than any other line, making shipments last year aggregating \$13,262,560, against the previous high level of \$10,704,873 in 1905. These exports in 1887 amounted to \$2,145,281, but dropped in 1894 to \$1,445,269.

In straw and horsehair goods Switzerland has not held her own in the United States. The shipments, starting at \$83,341 for 1887, almost steadily increased to \$683,341 in 1895. Since that time the trade has just as steadily declined, amounting in 1905 to \$197,626 and in 1906 to \$255,563. Swiss leather goods' sales to America, which amounted to \$72,827 in 1887, \$386,515 in 1890, and dropping to \$6,282 in 1902, were nil during the past three years.

The Swiss exports of clocks, watches, and parts of, to the United States last year was the largest in the past twenty years, their value being \$2,469,516, against \$2,261,519 in 1905. This trade, which amounted to \$1,671,028 in 1887, declined in 1895 to \$1,000,000, continuing the retrogression until 1898, when the shipments of time-pieces to America amounted to but \$746,240. Since that time the

trade has been rapidly recovered. Music boxes from Switzerland no longer find the wide sale as formerly, the sales in 1887 having amounted to \$235,415 and in 1890 to \$300,708. There has since been a continuous drop, the exports amounting to but \$52,174 in 1905 and \$43,151 in 1906.

Swiss cheese sales in the United States continue to expand. The value in 1887 was \$691,330; the million-dollar mark was passed in 1902; the shipments for 1905 were worth \$1,437,808, while in 1906 the aggregate was \$1,833,588. Dyestuffs were exported to America in 1887 to the amount of \$146,154, in 1895 to \$384,677, and last year to \$798,009.

LIST OF EXPORTS.

The following table gives the values of the different classes of merchandise exported from Switzerland to the United States during last year, as compared with 1905.

Articles.	1905.	1906.	Articles.	1905.	1906.
Silk and half silk	\$3, 130, 566	\$2, 345, 358	Musical instruments	\$52, 174	\$43, 151
Silk gauze	185, 197	245, 427	Scientific instruments	20, 119	31, 507
Silk and half silk ribbons.	1, 085, 895	854, 909	Machines	111, 060	119, 332
Silk, spun	51, 438	2, 325	Hides	430, 434	359, 155
Floss silk	780, 889	669, 015	Colors	886, 019	799, 010
Total silk	5, 194, 485	4, 117, 084	Other dyes and chem- icals	134, 146	180, 981
Embroidery	10, 794, 873	13, 261, 960	Cheese		
Horsehair	6, 495	2, 796	Condensed milk and products	1, 437, 808	1, 833, 588
Cotton twist	46, 153	135, 980	Chocolate	530, 010	666, 011
Cotton and cotton texture	847, 658	1, 326, 510	Spirits	19, 095	23, 663
Knit goods	438, 447	502, 037	Sundries	430, 401	451, 839
Straw goods	197, 626	85, 563			
Clocks, watches, and parts of	2, 261, 519	2, 409, 516	Total	23, 856, 517	26, 376, 762

SWISS MARKETS.

SOME MISDIRECTED EFFORTS TO SECURE TRADE.

Consul Mansfield also gives some practical suggestions for disposing of American productions in Switzerland:

During the year 1906 more than 31,000 commercial travelers secured license to solicit trade in Switzerland. Of the total number of traveling salesmen seeking Swiss trade, Germany furnished 4,700; France, 1,300; Italy, 390; Austria-Hungary, 250; Belgium, 85; England, 67; Holland, 28; Spain, 6; while only 1 was registered from the United States. Switzerland's total imports for 1906 amounted to \$283,528,483 United States currency. During the same period the exports amounted to \$207,449,632. Of the import trade, the United States furnished less than 5 per cent. The fact that so small a portion of the trade came from the States is not surprising when the records show that only one American commercial traveler secured license in Switzerland last year.

American manufacturers and exporters are industriously striving to broaden their field of operations and to extend their trade into all the markets of the world. In this commendable endeavor the American consuls are striving to aid and cooperate. But unfortunately there seems to be a lack of understanding and concerted effort, which once secured should bring better results.

TRAVELERS FAIL TO VISIT THE CONSULATES.

To illustrate this point, Lucerne will serve as a good example. Hundreds of American manufacturers and business men, who are anxious to secure Swiss trade and who make frequent trips to Europe for pleasure, come to Lucerne annually. But seldom does one of them call at the consulate to discuss trade relations or the best means of securing business in this market. They write letters to the consulate asking for lists of names of dealers and merchants, to whom they send catalogues, printed circulars, price lists, etc. Investigation through this consulate in the local market leads to the conclusion that little business is secured by this method of soliciting. The reason is obvious. A great majority of the catalogues, circulars, and price lists sent to prospective purchasers are printed in English, and the weights, measures, etc., given in the systems in use in America, and prices quoted in United States currency. The expense of this method of advertising and soliciting is considerable, while the results are practically nil.

To increase trade between the United States and Switzerland it is necessary to send experienced salesmen who speak the language of the country and who will work the trade as persistently and industriously as they do at home. It is as unreasonable to expect favorable results from sending circulars printed in English to Swiss dealers as it would be for the New York manufacturers to send descriptive circulars printed in Italian to the dealers in Minnesota. Switzerland buys from the United States only such articles as she is compelled to have from that source. The trade will continue, but it will not increase and expand to the proportions to which it should with proper effort until different methods for securing business are employed. And the same is true of other countries.

Germany has the largest per cent of Swiss trade, because it is solicited by trained commercial representatives. France has the second largest share of the import trade in this market, and for the same reason. Of course both countries are contiguous to Switzerland.

TURKEY.

TRADE WITH UNITED KINGDOM.

AN EXTENSIVE INTERCHANGE OF COMMODITIES.

Vice-Consul-General W. Smith-Lyte, of Constantinople, submits the following report covering the trade of the United Kingdom with Turkey (Ottoman Empire) for the year 1905, to which the Bureau of Manufactures adds some later figures:

The total imports into the United Kingdom from Turkey in 1905 amounted to \$26,724,108, against \$28,002,075 in the previous year. The leading articles were: Cereals, valued at \$6,557,444; fruit, \$5,034,477; dyeing materials, \$1,280,465; metals and ores, \$104,081; opium, \$985,520; olive oil, \$558,747; mohair, \$3,931,651; leaf tobacco, \$967,217; wool, \$2,112,329; wool manufactures and spun wool, \$1,266,730; goat and sheep skins, \$240,829, and sponges, \$565,998.

The exports from the United Kingdom to Turkey during 1905

were valued at \$32,564,490, a decrease of \$3,187,291 from those of the previous year. More than 70 per cent of the exports were cotton articles, the value of which amounted to \$23,806,671. The following statement shows the leading articles of export:

Articles.	Value.	Articles.	Value.
Chemicals	\$188,426	Leather	\$94,858
Clothing	94,693	Machinery and steam engines	748,673
Coal, etc	1,425,968	Oils	74,526
Cotton goods	20,501,650	Oilecloth, etc	156,648
Cotton spinnings	8,305,021	Ores, raw and worked	1,037,027
Hardware	102,094	Tin	169,125
Jute	186,139	Woolen goods and spun wool	2,568,252

The value of the foreign and colonial goods exported from the United Kingdom to Turkey in 1905 was \$1,399,494.

From official statistics the Bureau of Manufactures learns that the exports of many articles from the United Kingdom to Turkey in 1906 show great advances over 1905. Especially is this so in cotton yarns and fabrics, which rose in value from \$23,806,671 to \$28,078,985, and this does not include articles that pay an ad valorem duty. Woolen tissues also show an increase from \$773,739 to \$875,148.

TRADE OF CONSTANTINOPLE.

The London Financial Times publishes the following on the foreign trade of Turkey:

Statistics of the trade of Constantinople are always belated, and the British consular report just issued, dealing nominally with 1906, really only comes down to 1904. The last custom-house figures were for 1900, but other Turkish returns put the imports for 1904 at \$135,050,242 and the exports at \$77,241,088, a total of \$212,291,330. As compared with 1903, this is an increase of \$14,818,492, or 7½ per cent. The consul is able to give the value of British trade in 1905 and 1906 from our own returns, and also that of Austria-Hungary, Germany, France, Russia, and Belgium for 1905 from the respective returns of those countries. These later details exhibit in the main a steady improvement, and the consul hails the growth of imports as a sign of prosperity in welcome contrast to the pessimistic accounts usually given of the condition of the population. Apparently the purchasing power of the people has materially improved, and there is a wide demand for those commodities which would hardly be bought in large quantities if money were very scarce. Our consul thinks the exports are much understated, and that were the statistics properly drawn up a considerably bigger volume of outward trade would be shown. The imports from the United Kingdom last year passed the £8,000,000 (\$38,932,000) limit, being a record for this generation. Half a century ago the total was £4,000,000 (\$19,466,000), and in 1827 only a little over £500,000 (\$2,433,000).

COMMERCIAL SAMPLES IN TURKEY.

The British consul at Constantinople reports that in connection with the recent Turkish custom-house reforms commercial travelers' samples will be considered as goods in transit, and the duty paid on them will be returned if they are reexported within six months. The refund will be made at the last custom-house through which the goods leave Turkey. Special regulations as to complying with the special printed form of declaration made out in Turkey in indelible ink are necessary to secure the benefit of this change in the Turkish law.

AUSTRIA.

AMERICAN SALES.

RAPIDLY EXTENDING EXPORT TRADE WITH THE UNITED STATES.

Consul S. C. McFarland, of Reichenberg, makes the following report on the growing export trade from Bohemia in Austria to American markets:

During the calendar year ended December 31, 1906, the total number of invoices certified at this consulate of shipments to the United States was 3,605, as against 3,013 the preceding year, and in the district, including Haida agency, \$5,489 as against 3,313, constituting the heaviest year's business in the history of the consulate. The total export values were \$3,187,877, as compared with \$2,682,405. In greater proportion than ever before letters were received at this consulate relating to the introduction or extension of American trade. Increases and decreases in Reichenberg exports to the United States are shown in detail by the following comparative table, the net gain of last year being \$488,330:

Articles.	1905.	1906.	Articles.	1905.	1906.
Artificial flowers		\$331	Jewelry and millinery ornaments	\$289,800	\$356,450
Beads and bead-trimmed articles	\$46,434	95,449	Lamps and chandelier ornaments, glass fringes	17,284	49,150
Beer	526	561	Linens, household and table	352,611	1,094,600
Blankets, woolen	5,194	8,319	Metal ware, boxes, ornaments, settings, snaps	8,342	7,790
Buttons, glass, stone, and metal	79,943	62,960	Miscellaneous	709	2,091
Carpets and rugs	53,500	75,086	Paper, and manufactures of	1,335	1,964
Celluloid goods, comb tops, hat-pin heads		1,085	Picture frames	393	109
Cigarette tubes		144	Pictures, paintings		28
Colors, raw, for enameling	1,658	2,606	Porcelain and pottery	1,936	4,283
Corduroys and velveteens	3,065	454	Precious stones and imitations of	211,613	292,687
Cotton cloth	2,407	13,325	Shawls, woolen	5,298	5,865
Enameled ironware	1,167	5,799	Silk hatbands	206	305
Furniture, bent-wood		1,000	Silk-mixed cloth		3,446
Glass and glassware, cut and decorated	134,008	128,346	Smokers' articles, pipes	180	830
Hair, human	4,901	7,038	Soap		
Hatchels and carling brushes	230	305	Toilet cases, toothpick novelties	1,332	809
Hops	53,131	25,628	Woolens, dress goods, billiard-table cloth	108,667	168,621
Hosiery	127				
Household effects	447	150			
Instruments:					
Musical, and supplies for		111			
Optical and scientific	309		Total	1,927,133	2,415,463

The exports from the consular agency district of Haida, Austria, to the United States for the past two years were:

Article.	1905.	1906.	Article.	1905.	1906.
Artificial flowers	\$71,136	\$93,291	Metal ware, mostly nickle plated	\$5,774	\$4,061
Buttons, mostly ivory	71,577	48,414	Needles	27,913	31,391
Chemicals, glass, paints	14,988	18,818	Porcelain and pottery	16,570	14,292
Cutlery, pocket knives	40,256	41,706	Spartery, plaited wood cloth	12,788	18,607
Enameled ironware	9,088	19,227	Sundries	1,079	3,413
Furniture, bent-wood	918				
Glassware, cut, engraved, and decorated	490,224	478,907	Total	755,273	772,326

The total increase for 1906 over 1905 amounted to \$17,053.

GREECE.

HORSES FOR THE ARMY.

GOVERNMENT REQUIREMENTS FOR THE CAVALRY AND ARTILLERY.

Consul-General George Horton makes the following report from Athens on the methods of purchasing horses for the Greek army:

Nearly all the horses used by the Greek army are bought in Hungary. Recently an order for 714 horses was placed in Szabadka, at 750 and 800 francs each (franc=19.3 cents), delivered in Piræus. The Hungarian Society *Thierversicherungs-Gesellschaft*, of Budapest, has now invited the Greek Government to inspect a lot of 1,500 horses that it has on hand. This is a society to which many of the leading horse raisers of Hungary belong, and it is said that the participation of the society in any transaction is a guaranty of quality. For this reason its price for cavalry horses is about 30 francs higher than the prices quoted for the 714, some of which are alleged to have been diseased animals, having been furnished by a private dealer. The society's price of 830 drachmas apiece, at present rates of exchange, is about \$150 per horse.

Conditions for tenders, as fixed by the Greek Government, October 12, 1906, were as follows:

Horses intended for the cavalry must be suitable for riding, while those for the artillery must be good traction horses; age not less than 4 and not more than 8 years. Height of cavalry horses, m. 1.55; height of artillery horses, m. 1.58. The horses should be male (castrated) by preference, but the number of mare must never exceed the sixth of the total number. The color is indifferent, only white being excluded, but the preference will be given to dark-colored horses. The horses to be free of all ailments or diseases internal or external, all hidden or chronic maladies, bodily defects, or bad habits, curable or incurable, and all relapsing maladies. The price to be 800 francs for the cavalry horses and 850 francs for artillery horses, including expenses of transport to the Piræus.

PRIMITIVE FLOUR MILLS.

OLD-FASHIONED METHODS STILL IN VOGUE.

Consul-General George Horton, of Athens, reports that there are in Greece 31 flour mills, 14 of which are located at Piræus and Athens. All these use old-fashioned millstones, with the exception of four that have introduced the more modern cylinder system. The daily output of all these mills is about 1,250,000 okes (1 oke=2.8 pounds). Russian hard wheat is mostly used. This year, however, owing to its high price, considerable hard wheat was imported from America.

CHINA

CHINESE EMPIRE

IMPORTS OF AMERICAN PRODUCTS

IMPORTS OF AMERICAN FLOUR AND WHEAT IN 1906 INCREASING.

THE CUSTOMS OF SHANTUNG PROVINCE REPORTS THAT THE FIGURES FOR THE IMPORTS OF AMERICAN FLOUR AND WHEAT INTO THE PORT OF SHANTUNG IN 1906 WERE AS FOLLOWS:

THE IMPORTS OF AMERICAN FLOUR IN 1906 WERE IN COMPARISON WITH THE FIGURES FOR THE PREVIOUS YEAR. THE GREATER PORTION OF THIS COMMODITY WAS IMPORTED FROM THE PORT OF SHANTUNG, ONLY A SMALL SHARE BEING IMPORTED FROM OTHER PORTS. THE IMPORTS OF AMERICAN FLOUR IN 1906 WERE AS FOLLOWS: VALUE IN AMERICAN DOLLARS.

	QUANTITY	VALUE
AMERICAN FLOUR	1,200,000	445,000
AMERICAN WHEAT	1,000,000	100,000
TOTAL	2,200,000	545,000

THE IMPORTS OF AMERICAN FLOUR IN 1906 WERE IN COMPARISON WITH THE AMOUNT IMPORTED IN 1905. THE VALUES FOR SUCH FLOUR IMPORTED INTO THIS PORT DURING 1906 WAS \$445,000 PER TON OF 100 LBS. AMERICAN FLOURERS BROUGHT IN 1,200,000 POUNDS, VALUED AT \$445,000. A GREAT INCREASE OVER 1905 FIGURES WAS SHOWN IN THE IMPORTS OF AMERICAN FLOUR FROM SHANTUNG, WHICH DROPPED FROM \$32,500 IN 1905. THIS CAN BE ATTRIBUTED TO THE LARGE DIRECT IMPORTATIONS, WHICH REQUIRE LESS HANDLING OF WHEAT AND IS MORE SATISFACTORY TO BOTH PROducers AND CONSUMERS. THE CUSTOMS FIGURES SHOW THAT NO OTHER FLOUR OF FOREIGN MANUFACTURE WAS IMPORTED DURING THE YEAR. IMPORTATIONS OF NATIVE FLOUR FROM NATIVE PORTS STILL RUN INTO LARGE FIGURES, AND THE YEARLY INCREASE IN THIS PARTICULAR INDUSTRY SHOWS THAT THIS FLOUR IS AN IMPORTANT COMPETITOR TO THAT OF AMERICAN MANUFACTURE. THE NATIVE FLOUR IMPORTATION FIGURES FOR 1906 WERE \$520,536.

Practically all of the flour imported at this port comes in 50-pound sacks. The large importations of flour are partly attributed to the increase of the cost of native foodstuffs, the natives preferring flour to cereals of native growth. Formerly wheat was imported into Manchuria from Shantung Province, but at present American and European manufactured native flour can be bought at a figure that does not warrant the native in continuing his former customs. The increased demand can also be attributed to the increase in the population of Manchuria, thousands of emigrants from both Chi-li and Shantung provinces having settled throughout the north.

During 1907 the direct imports of American flour will most likely be larger than those of the preceding year. This is due to the increased demand for native flour at Shanghai, the principal port of manufacture. This increased demand is attributed to the high prices at present prevailing for rice and to the famine prevailing in the neighboring district.

LUMBER IMPORTATIONS.

The imports of lumber from foreign countries during 1906 were as follows: From the United States, \$38,736 worth; Hongkong, \$1,368; Japan, \$259,111, and Chinese ports, \$5,000; total, \$304,215. Japan furnished more than 80 per cent of the lumber. Only \$5,000 worth of foreign lumber was imported from Shanghai, against \$42,000 of the year before. As this lumber is unclassified by the customs, it is impossible to state with any degree of accuracy how much American lumber was imported from Shanghai; but as the figure in 1906 was very small, it is not worthy of consideration.

Lumber importers state that practically 50 per cent of the lumber shipped from Shanghai to this port consists of American pine. American pine is used in all buildings for the heavier and more important work. The Korean pine can not be compared with the American product; the former is very soft, has not much strength, and is very easy to work. All timbers are sawed by hand, and a Chinese contractor when sawing American pine will charge more than double the amount figured in sawing Korean pine. Of the total of American pine imported during 1906, about 15 per cent consisted of flooring, 15 per cent timbers, and the remainder in boards and plank.

AMERICAN GINSENG.

American exporters of this article should not place too much significance on the customs import figures of ginseng during 1906, as these figures are undoubtedly due to the importation of an imitation of the American article. The figures show that American clarified ginseng to the amount of \$14,673 was imported at this port during the year, nearly all of which came from Hongkong. This is an increase of more than 300 per cent over the previous year. The average value placed on American ginseng was \$5.88 per catty of 1½ pounds. The total demand for ginseng for the year 1906 was only a little larger than that of the preceding year. I have seen several samples of the so-called American clarified ginseng which was wholesaled at the rate of \$2.40 per catty of 1½ pounds. The Chinese dealers who sell the imitation are sure of this fact; but as they realize a good profit, and if the native is willing to purchase the same for the real article, they have no complaint to make. Some American ginseng has undoubtedly been imported into Newchwang, but the greater part of the root imported during 1906 consisted of an imitation. Heretofore it has been a custom to ship a cheaper root to Hongkong, and after being clarified at that place reship to northern points as the American clarified article. Fifty-three pounds of American clarified ginseng was imported from Shanghai during the year, at a valuation of \$11.50 per catty of 1½ pounds. This was undoubtedly some of the genuine article, as duty was paid at a high valuation.

The best ginseng comes from Manchuria. This variety is known

as wild ginseng and brings a much higher price than the ginseng of American growth, a single root costing as high as \$11. This variety is used by the Chinese for a tonic, while the American clarified is chiefly used as a blood purifier.

From the customs figures it is apparent that the imitation was imported as American clarified and a duty paid at an average valuation of \$5.88 per catty of 1½ pounds. Consequently when this article is wholesaled at the rate of \$2.40 per catty it arouses suspicion, to say the least. In paying duty at the valuation placed on the American root the importer undoubtedly strengthened his claim and finds a ready market among the Chinese dealers for the imitation article. I would advise all prospective exporters of American ginseng to correspond with Hongkong, as no ginseng is imported direct from the United States; besides, the root goes through a clarifying process at Hongkong before shipment to this port.

MANCHURIAN TRADE.

CHEAPER TO SEND GOODS THROUGH DALNY.

Consul-General W. D. Straight reports from Mukden on several Manchurian commercial subjects as follows:

The following is a translation from a Japanese paper published at Mukden:

According to the statement of a wealthy merchant at Newchwang it is considerably cheaper at present in shipping piece goods from Shanghai to Changchun, for example, to do so through Dalny than through Newchwang. Goods sent through the former port are not only free from duty, but the cost of transportation is found to be a great deal cheaper than by way of Newchwang. As a result the saving made by importing piece goods through Dalny is about 3 taels (\$2.40) per bale.

JAPANESE BEER IN MANCHURIA.

The market for Japanese beer in Manchuria is steadily growing. Its sale, however, is as yet largely confined to the Japanese and Russians, although the Chinese are gradually acquiring a thirst. The importations through Dalny last year consisted of about 16,000 cases (48 quart bottles) of Asahi and 12,000 cases of Sapporo beer, valued at 300,000 yen (\$150,000). Of this amount about two-fifths was sold to the Russians in Harbin and other points in northern Manchuria, while considerable importations into this region as well as Siberia were also made by way of Vladivostok. Japanese beers are practically all lagers, of which the two named most popular brands supply practically the whole of the Manchurian market at present. While the prices last year were irregular, owing to the unsettled condition of the market, sales being made at the highest figures obtainable, sometimes as much as 50 sen (25 cents) per bottle, the present wholesale price is about 25 sen (12½ cents). Importers of Japanese beer expect that their sales during the present year will be fully double those of last. If American beer could be placed on the market here as cheap as the Japanese product, or even slightly higher, it would undoubtedly sell well, especially in northern Manchuria.

JAPANESE ESTABLISHING BRICK FACTORIES.

Plans are on foot for the organization of a Japanese enterprise called the Manchuria Joint Stock Brick Manufacturing Company

with a capital of 1,000,000 yen (\$500,000). The company's plant will be located at Choushuiton, in the Kwantung Leased Territory, and the latest model of Hoffman's brick-making machinery will be installed. Six other companies with a smaller amount of capital also intend to engage in this industry. In view of the large amount of construction that will be undertaken in the future, both in connection with the railways and in the many cities newly opened to foreign residence and trade, this enterprise should be a very profitable one. Although a large number of small native brick kilns are operated throughout Manchuria, the quality of the product is inferior and their capacity is far too small to fill extensive orders promptly.

SUCCESS OF A GERMAN FIRM—RAILWAY RETURNS.

A German firm, with headquarters at Tientsin and branches in Manchuria, has secured from the Tartar General of the Province of Kirin (Central Manchuria) an order for 12 pieces of mountain artillery at 300,000 taels (\$240,000). Half of this amount is to be paid down and the balance on the delivery of the guns at Tientsin.

The freight returns of the South Manchurian railway for February amounted to \$151,760 gold, while the passenger receipts were \$97,500. The average daily receipts per mile were \$16.30. The February receipts have always been the smallest of any month in the year, and as compared with January the total receipts were \$114,360 less and the daily average receipts per mile \$5.10 less.

AMOY'S COMMERCIAL FUTURE.

DECREASE IN EXPORTS OF TEA AND INCREASE IN PAPER AND SUGAR.

Consul H. L. Paddock reports that the general impression regarding trade at Amoy, China, is that it is on the decline and that in a few more years it will be nothing more than a fishing port. He reviews the trade as follows:

There is much to support this idea in considering the trade values for the past ten years, for while imports have had a steady increase, exports have remained practically stationary. The tea exports have decreased enormously, but other exports have increased. When Amoy was first opened to foreign commerce there was a large export of tea. In 1874-75 there were 7,645,386 pounds of Amoy oolong tea shipped to the United States. This was the Amoy tea alone, not Formosa teas. Subsequent to that time the export of Amoy tea proper steadily declined until in 1899 the last shipment amounted to only 31,705 pounds. Amoy tea failed on account of its coming into competition with teas of a far better grade, such as those of Formosa.

Formosan teas were at one time nearly all shipped from Amoy, but this trade has been decreasing at the rate of 1,500,000 pounds per year since 1902, and at present only about 45 per cent of the Formosan crop is shipped from here. It would seem that it only requires the development of the Keelung Harbor in Formosa to cause the entire tea-shipping industry to die. Keelung Harbor is now capable of accommodating at its piers ships 400 feet in length and of 26 feet draft, and these improvements are continuing under the Japanese Government.

SHIPPING AND TRADE HOLD UP WELL.

Shipping at Amoy shows a steady increase in numbers of vessels and tonnage. This would show that some trade is being carried on here aside from the reexporting of Formosan teas. It can be said that as tea shipping decreased the exportation of paper and brown sugar has increased until they are considered as being among the largest exports of Amoy. Most of the paper is shipped to the Philippine Islands and the Straits Settlements, while the raw sugar is sent chiefly to Shanghai, Chefoo, and Tientsin. While these two exports have increased largely within the last few years, it can not be said that the increase has caused the enormous growth in tonnage and numbers of ships entering and clearing. Other reasons must be sought for this. One may be that the export of humanity in the shape of coolie laborers to the Straits Settlements has increased largely, and another reason lies in the fact that imports to Amoy have steadily increased.

Kerosene oil, flour, quicksilver, cotton cloth, opium, blankets, and cigarettes have increased wonderfully in the order named. Of these imports only the first two and the last, namely, kerosene oil, flour, and cigarettes, are from the United States. The importation of kerosene oil from America is steadily increasing. As regards the importation of American flour, the supply is insufficient to meet the demand. For the six days ending March 22 last 128 tons per day passed through the local custom-house, or 1,535,972 pounds for the six days. This is fairly indicative of the American flour trade locally.

As regards quicksilver, it is worthy of notice that in 1902 Amoy imported more quicksilver than any other port in China, and 25 per cent of the total import to China. In 1905 Amoy was second in its importation of quicksilver, Tientsin having imported more than Amoy by 53 piculs, or 7,067 pounds.

Cotton cloth is mostly imported from Great Britain, opium from Persia, and cigarettes from the United States. The last article is meeting with a heavy competition from English and Egyptian prices, but the imports from America amounted to about 40 per cent of the total imports last year and were valued at approximately \$15,000 gold. These cigarettes are exceedingly low grade, but find a ready market.

MERCANTILE DEVELOPMENT.

DISTRIBUTION OF FOREIGN TRADE—POST-OFFICE EXPANSION.

A dispatch from China states that the maritime customs trade report of China for 1906, recently published, gives some interesting statistics showing the respective shares of the several nations in China's foreign trade from 1899 to 1905. The present figures show that in 1905 Great Britain's share of the exports was 19.42 per cent, and of the imports 47.84 per cent, or, roughly, one-third of the whole foreign trade. Next in importance come the United States and Japan.

The report includes a summary of the work of the postal service, which shows that the articles handled increased from 76,000,000 to 113,000,000. The statistical secretary draws attention to the effect of Japanese preferential rates on the Manchurian Railway, which, as

the Newchwang returns indicate, are effectively diverting the trade of the northern provinces from that port to Dalny. From Newchwang to the great distributing center of Kwanchengtze, a distance of 330 miles, the rates are 2½ yen (\$1.25) higher than from Dalny, a distance of 465 miles. The trade of Kiaochau continues to show a remarkable development, the revenue having been doubled since 1904. The consumption of foreign opium has increased in all the provinces except Kiangsi and Chekiang.

FAMINE IN NANKIN DISTRICT.

A VICEROY SAYS IT HAS BEEN THE WORST IN FORTY YEARS.

Consul Thornwell Haynes transmits the following account of the famine in the Nankin district of China:

A famine, due to floods and a consequent failure of the rice crop, has prevailed in this district since December, 1906, threatening the lives of 4,000,000 people. Some 50,000 refugees from the north and south camped around Nankin in improvised straw sheds, many of them with no beds but the damp ground. As many gathered around the other large cities in this district, all coming to get their share of the free rice which the officials distribute in such unfortunate years. Around Nankin thousands of them built their huts in the bed of the canal, whence the water at the time had subsided.

The viceroy acknowledged that he was unable to cope with such a situation, and welcomed the aid of foreigners, who, in Shanghai, Nankin, Chinkiang, and other places, gave liberally. The authorities greatly helped the starving people to keep their cattle, and to this end took their oxen and buffaloes in pawn for 2 taels (\$1.62) each, keeping them through the winter to return them in the spring. The viceroy says that this famine is ten times worse than anything known in this part of the Empire for forty years.

HONGKONG.

GROWTH OF TRANSIT TRADE.

COMMERCIAL, INDUSTRIAL, AND MARITIME MOVEMENTS.

Consul-General Amos P. Wilder reviews the traffic and commercial operations for the past year at Hongkong, the British free port in South China, as follows:

Hongkong is distinctive in being a transit port, with but little qualification, and as such its growing importance can scarcely be exaggerated. The city of Victoria, itself a part of Hongkong, has some 300,000 people, all but 10,000 are Asiatics, and the consuming power is inconsiderable. Cargoes come from many parts of the world, to pass through Hongkong as the key port to other countries or for distribution in South China, with its many subports of entry supplying teeming millions. So, too, the exports from Hongkong are gathered in from Canton, with its 2,000,000 workers, and other interior points, and from Chinese cities in the southern part of the Empire, to be distributed over the world. There are from forty to seventy-five steamers in the harbor all the time, but the cargoes they bring and take out are in many instances undisturbed in the holds.

When bulk is broken, the freight may be transferred by lighters to be laden on other steamers without being brought ashore. But there is an extensive system of go-downs in Hongkong for the temporary deposit of freight, though the amount actually landed at this port for local consumption is of course very small.

AN OFF YEAR INDUSTRIALLY.

The year 1906 was marked by quietude in trade, and, like 1905, was disappointing in commercial circles. Floods in the country districts, partial failure of the first rice crop, and uncertainty owing to attacks of pirates in the Canton delta were factors. The evils of exchange fluctuations were at their maximum, the Hongkong dollar varying from 47 to 55 cents gold, and introducing a large speculative element into every transaction. The debasement of the coinage through the flooding of the colony by the Chinese provincial governments with short-weight silver further confused matters. The discount on these rose to 7 per cent at times, and thus a merchant in the interior buying from Hongkong had to send \$107 in his currency to buy \$100 worth of goods here.

The typhoon of September 18, apart from the destruction of property running into millions, paralyzed business for a week and hampered it for months through an absence of lighters to effect transfer of goods and of wharves to receive them. A large quantity of damaged goods was thrown on the market under the hammer, thus invading the regular market. The cotton-yarn trade was completely demoralized during the year through overstock of India yarn, being attended with failures of well-known houses and great loss by leading firms. Toward the end of the year the yarn-trade conditions improved somewhat. The rise in exchange through the year militated against piece-goods business, dealers hesitating to buy in the expectation that by delay they could buy cheaper.

The metal trade was light. The typhoon made work for the dock companies and engineering firms. The one cotton mill of Hongkong felt the perturbation of the yarn market. High exchange put the cement industry at a disadvantage with competing plants in other countries. The rope industry had a fair year. Cement, rope, and sugar are the three dominant industries of this port.

The deplorable loss of life and damage done, due to the typhoon, will be indelibly marked in the annals of the colony. It is believed that 5,000 is a low estimate of the loss of life, including about twenty Europeans (non-Asiatics).

EXTENT OF SHIPPING.

The total tonnage entering and clearing at Hongkong during the year 1906 amounted to 32,747,268 tons, being a decrease, compared with 1905, of 1,437,823 tons; but in combining ocean and steam river trade, a tonnage amounting to 19,793,384 is shown, an increase of 86,656 tons over 1905, and the highest yet recorded. Of British ocean-going vessels, 3,595,879 tons entered and 3,593,592 cleared. Of foreign ocean-going vessels, 3,565,449 tons entered, and 3,528,046 cleared. Of British river steamers, 2,424,961 tons entered, and 2,417,540 tons cleared. Of foreign river steamers, 334,831 tons entered and 333,086 tons cleared. The decrease in arrivals and departures of British ocean-going and river steamers (Canton and West

River trade) excites some colonial remark. Thus, while British ocean-going ships decreased from 3,995 in 1905 to 3,697 in 1906, a shrinkage of 298 ships of 482,853 tonnage, foreign ocean-going steamers increased from 3,845 in 1905 to 4,287 in 1906, a gain of 442 ships of 1,272,710 tonnage. River traffic shows like gains by foreign steamers (non-British). Thus, British river steamers (arrivals) decreased from 7,488 in 1905 to 6,464 in 1906, a decrease of 1,024 ships, of 711,521 tonnage. On the other hand, foreign river steamers increased from 975 ships to 1,071 ships, an increase of 96 ships of 8,320 tonnage.

Following the activities of the Russo-Japanese war, traffic could only abate. The markets were more or less choked with coal and supplies at the restoration of peace. The earthquake of San Francisco, especially the typhoon of September 18, with its annihilation of thousands of small craft and total destruction and incapacitation of dozens of large steamers, and mishaps to a number of the larger ships during the year, readily explain the shrinkage. It is needless to say that Great Britain still rules the sea in these parts. Although there are more foreign ocean-going steamers coming to the port in number, the tonnage of the British ocean-going vessels is still greater than that of the vessels of all other nationalities. There has been a decided increase in the number of British river steamers, but there are still six times as many sailing under the red ensign as fly the commercial flags of all other nations.

Of the total tonnage for 1906, British ocean-going vessels constituted 21 $\frac{1}{10}$ per cent, as against 22 $\frac{1}{4}$ per cent in 1905. In 1906 American tonnage constituted 4.29 per cent of the total tonnage, exclusive of river steamers, launches, and junks, while in 1905, 4.77 per cent was under the American flag.

DIMINISHING AMERICAN MERCHANT MARINE.

The share of American ships in the immense traffic of this port is humiliating to those who know the proud place they held in the early days of this colony and earlier in the Canton trade. The present day "liners" from San Francisco and Seattle are the largest ships that come to Hongkong. In these leviathans every American takes pride, and for passenger travel they are in high favor; but while in tonnage capacity the rank of the United States is not small, the huge ships of the Great Northern, Pacific Mail, and other lines bringing up the total, the fact remains that a great body of the imports and exports of our Pacific and Atlantic ports are carried in ships flying a foreign flag. The total number of ocean ships arriving and clearing at Hongkong in 1906 was 7,984, of which 3,697 were British; and of the 4,287 "foreign" (non-British) the Germans listed 1,682, the Japanese 594, the Norwegians 552, the French 435, the Chinese 405, the Portuguese 148, and the Dutch 125, while there were 119 arrivals and departures credited to the United States. While the immense individual tonnage of the few American ships that come to this port made a total of 613,115, yet the German ships aggregated over four times as much, the Japanese over twice as much, and the French somewhat more than the American.

The enjoyment of American foreign trade by non-American ships may be illustrated thus: The 119 ships of the United States arriving

in 1906 brought to Hongkong a total of 41,430 tons from the United States, yet the flour receipts alone for the year, nearly all from America, were 79,635 tons, and of kerosene oil, mainly an American product, a total of 72,869 tons, to make no mention of cotton piece goods and general merchandise. So of exports, American ships took from Hongkong but 56,149 tons, not all of which went to the United States. All the rest of the huge exports went in foreign ships. Of the 3,744,287 tons of imports into Hongkong for 1906, American ships brought 41,430 tons; of the 1,940,274 tons of exports, only 56,149 tons went in American bottoms. Of the 2,878,360 tons "in transit," only 25,829 tons are credited to American ships. These figures have to do with ocean traffic.

As for "river traffic" from Hongkong as a center to Canton and the Delta, while six other nations figure in the statistics, not one item is credited to the United States.

NATURE OF IMPORTS.

Hongkong being a free port, with no custom-house, only approximations of cargo are given in the harbor master's report, sugar and opium being exceptions. These commodities are manifested and the returns may be accepted as reliable. The imports show an increase of 159,426 tons, or 4.1 per cent over 1905, principally due to sugar (general), rice, and flour, respectively. In sugar 170,391 tons, or 54.6 per cent, is shown. In rice 58,198 tons, or 10.3 per cent, is recorded. This increase would have been considerably enhanced were it not for the scarcity of cargo boats following the typhoon in September. Many of the vessels departed with full cargoes as transit which otherwise would have been reported as imports. In flour there was 25,127 tons increase, which points somewhat to a cessation of the boycott of this American commodity, although some small shipments were reported from Australia during the early part of the year. Among the decreases coal is prominent, amounting to 112,622 tons, which may be explained to some extent in the same manner as reported in 1905, a cessation of maritime warfare and an overstocked market. Case oil follows with a further falling off of 45,569 tons. This reduction may be ascribed to the large stock accumulated in the colony on account of the boycott and to shipments that passed through the harbor as transit for other ports, which hitherto in some instances were landed and reshipped at this port.

The imports at Hongkong in tons for two years are shown in the following table:

Articles.	1905.	1906.	Increase (+) or decrease (-).	Articles.	1905.	1906.	Increase (+) or decrease (-).
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>		<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
Beans	2, 113	3, 360	+ 1, 247	Rice	566, 171	624, 369	+ 58, 198
Coal	1, 083, 987	971, 365	- 112, 622	Sandalwood	3, 386	2, 561	- 825
Cotton yarn and cotton	32, 949	41, 871	+ 8, 922	Sulphur .....	.....	100	+ 100
Flour	64, 508	79, 685	+ 25, 127	Sugar	311, 787	482, 178	+ 170, 391
Hemp	26, 784	28, 356	+ 3, 428	Tea .....	.....	.....	- 300
Kerosene (bulk) ..	43, 411	43, 932	+ 521	Timber	66, 324	82, 242	+ 14, 062
Kerosene (case) ..	74, 506	28, 937	- 45, 569	General	1, 594, 862	1, 663, 604	+ 58, 742
Liquid fuel	850	5, 850	+ 5, 000	Total	3, 869, 751	4, 029, 177	+ 159, 426
Lead	800	.....	- 800	Transit	3, 415, 418	2, 878, 360	- 537, 058
Opium	2, 983	3, 286	+ 303	Grand total.	7, 285, 169	6, 907, 537	- 377, 632
Rattan	3, 430	12, 531	+ 9, 101				

FLOUR, SUGAR, OPIUM, AND GINSENG.

The importations last year of flour, of 40 sacks to the ton of 2,000 pounds, were: California, 600,000 sacks, and Oregon, Washington, etc., 2,650,000 sacks, a total of 3,250,000 sacks. The erection of a flour mill in Hongkong of 2,000 barrels per day capacity, with most modern equipment, was one of the industrial achievements of the year. Australian flour came to Hongkong to some extent when the boycott was on, and, having learned the way, is ready for shipment whenever the price advances to a point enabling that country to compete.

During 1906, 483,119 tons of sugar were imported into Hongkong, of which 75,936 tons came from the Philippine Islands and 314,673 tons from Java. This sugar was in the main refined in the three refining plants at this port. The refined sugar was sold in the north, though in competition with Java and Japan, with the effect of making the year a rather disappointing one.

The imports of opium during 1906, as officially declared, were 47,556½ chests, and the exports 47,575½ chests; through cargo reported in manifests, but not landed, 9,712½ chests. Each chest contains from 1 to 1½ piculs, a picul being 133½ pounds.

The imports of ginseng, as unofficially declared, were 651 piculs, equal to 86,800 pounds.

NEW DOCK YARDS AND RAILWAYS.

Among new constructions are extensive steel-frame warehouses erected by a British shipping firm; a dry dock, capable of receiving the largest war ship on this station, by the Admiralty, and a most modern dry dock, for commercial uses, by a British firm. This will be equal to docking the largest steamers on the Pacific. The revised estimated cost of the Admiralty dock is some \$7,750,000 gold, and the date of completion 1908-9. The equipment includes four cranes, three of 20 tons and one of 50 tons, of the type known as the Fairbairn crane, which is distinguished by the swan-neck jib. They have each a foundation of 29½ feet in depth, while they rise to a height with the swan-neck curve of 65 feet above the ground level, and possess a revolving radius of 60 feet. There is boat building in a number of establishments. Forty-two steam launches and other considerable craft were built during the year. Bricks and tiles, bamboo and rattan ware, furniture, gold and silver ware, a knitting factory, a paper factory, glass making, preserved ginger, firecrackers, and matting to a limited extent, suggest other enterprises.

The colonial authorities are active in pushing their 30-mile section of the 130-mile Kowloon-Canton railway. It involves an extensive tunnel through the hills at the beginning of the route from Kowloon (on the mainland opposite the island of Hongkong), and this work is going forward. It is believed that by 1910 the British section will be completed. The Chinese have not as yet done much with their section beyond surveys and financial arrangements, and it is predicted by some that it will be necessary for the British to complete this work under some arrangement with the Chinese provincial (Kwangtung) authorities and the stockholders. As the sentiment of the Chinese is strongly in the direction of managing their own railway development, tact will be requisite on both sides in any such cooperation.

A very considerable product of Hongkong is granite. It is taken out in large quantities, and apart from its liberal use in building up the city on the mountain sides is shipped long distances.

COLONIAL BUDGET—CHINESE EMIGRATION.

The total revenue of the colonial government for 1906 was \$7,035,012, of which the opium monopoly yielded \$2,040,000; stamp duties, \$610,234; assessed taxes, \$1,400,642; spirit licenses, \$257,365; land sales, \$315,733. The total expenditures for the year, including public works extraordinary, aggregated \$6,832,611, public works extraordinary amounting to \$1,503,790.

There was a total of 76,725 Chinese men, women, and children who emigrated from Hongkong, of whom 60,320 went to the Straits Settlements; 3,371 to Callao, Peru; 2,972 to Mexico; 2,674 to San Francisco; 4,988 to Vancouver; 1,034 to Victoria, British Columbia; 29 to Tacoma, and 169 to Honolulu.

A total of 134,912 Chinese immigrated via this port, of whom 5,375 came from San Francisco, 77 from Honolulu, 473 from Seattle, 145 from Tacoma, 2,492 from Vancouver, and 65 from Victoria.

JAPAN.

A YEAR'S TRADE AT YOKOHAMA.

FOREIGN TRADE AND TRAVEL RETURNS OF THAT CITY.

FOREIGN TRADE AND TRAVEL RETURNS OF THAT JAPANESE CITY.

Consul-General H. B. Miller makes the following report on the foreign trade of Yokohama for last year:

According to returns just furnished by the director of Japanese customs at Yokohama for the year ending December 31, 1906, foreign trade at this port during that time is represented at \$101,889,047 exports and \$74,389,755 imports, a total of \$176,378,802, showing an excess of \$27,399,292 in exports. The amount of gold and silver exported from Yokohama in 1906 was \$3,606,998, and imported \$273,348, indicating an excess of \$3,333,650 exported.

The number of trading vessels which arrived in this port last year was 1,063, with 3,278,537 registered tons, including 762 foreign and 301 Japanese vessels, while 1,052 vessels, with 3,240,966 registered tons, including 760 foreign and 292 Japanese, were cleared from the port. The customs revenue for the year amounted to \$7,992,046, including \$56,953 tonnage dues, \$7,920,426 import duties, and \$14,668 general receipts. As for the number of foreigners arriving at and embarking from Yokohama during the year under review it is also officially reported in the same returns that 8,840 landed from abroad, 24,426 called at the port on board steamers from abroad, and 8,834 embarked for abroad.

COMMERCIAL PROMOTION.

GOVERNMENT BUREAU AT TOKYO AIDS BUSINESS—EXHIBITS INVITED.

The Japanese Imperial Commercial Museum invites attention to its permanent exposition at Tokyo, which is under the auspices of the

department of agriculture and commerce. A booklet describing the work of the Museum, which has been forwarded to the Bureau of Manufactures, contains the following facts of interest:

Introductions are granted to firms desirous of entering upon a connection with merchants and manufacturers of Japan. Space is reserved in the Museum for intending exhibitors of samples, specimens, etc. The museum offers unequaled facilities and opportunities to manufacturers and exporters, both domestic and foreign, to select goods best fitted for their respective businesses.

Reliable information respecting commercial and industrial matters in Japan is furnished to inquirers. The Museum also possesses a bureau of information, which collects facts concerning important business matters in Japan and abroad and maintains connections with domestic and foreign commercial museums, business firms, and other principal business institutions.

The Museum also sends traveling correspondents to different parts of the world to observe and investigate new commercial and industrial developments. From time to time public lectures on business conditions of foreign countries are given by traveling correspondents of the Museum and by the students in training of the department of agriculture and commerce who have just returned from abroad. The Museum has also secured the organization of the business men in an "Association of Commercial and Industrial Investigation," which has already met four times, bringing together prominent manufacturers and exporters.

A commercial library in the Museum is a depository for all domestic and foreign books, catalogues, and periodicals published on commercial and industrial subjects. The Museum has also published an Exporters' Directory of Japan in foreign languages to be distributed among foreign and domestic business men.

The Museum has on exhibition an extensive line of samples of foreign and domestic goods. Foreign articles are displayed in separate rooms, according to nationality. One of the noteworthy lines consists of goods which may serve as models to manufacturers and as a guide to merchants. The Museum, in a recent letter to the Department of Commerce and Labor, at Washington, makes the following suggestions:

Should any foreign manufacturer or merchant desire to effect a successful business in Japan it would be the best way to have his goods exhibited in this Museum, as this is the largest and only museum of Government establishment. It is our earnest desire to have it suggested to American manufacturers and merchants to send their goods and catalogues for the purpose of exhibition in the Museum, as it will be an unequaled advantage for advertisement.

SIBERIA.

GOODS FOR VLADIVOSTOK.

NEW SHIPPING FACILITIES NEEDED FOR AMERICAN TRADE EXPANSION.

In reply to an inquiry from a Philadelphia correspondent, Consul Roger S. Greene reports as follows:

The principal imports at Vladivostok from the United States are food products, of which the most important are flour, salted and

canned meats, lard, and dried, canned, and fresh fruits, all from the Pacific coast. There is an opening here for all kinds of manufactured articles, but at present, other things being equal, people prefer to buy from Europe, as freights are much lower and there is no need for transshipment of cheap bulky cargo, there being always a certain number of steamers loading for Vladivostok in European ports. Certain American manufactures are particularly known, such as scales, arms, photographic apparatus, typewriters, talking machines, etc., and American agricultural machinery has a good foothold, but heavier manufactures of iron and steel in general can not bear the high freights charged.

If American Atlantic coast merchants could arrange with one of the steamship companies operating lines between New York and Japan to offer one or two trips a season to Vladivostok, which would simply mean a two-days' trip from Moji, where most of the steamers coal, due notice being given both in Vladivostok and in the United States, some business might be started in such articles as railway supplies, electrical goods, structural steel, etc.; otherwise not much can be done from the Atlantic coast, except in articles whose value is so great in proportion to their size that freight is not such an important consideration.

[A list containing the names of American firms in Vladivostok and of the principal importers of that place, transmitted by the consul, are on file in the Bureau of Manufactures.]

BRITISH INDIA.

INDUSTRY AND COMMERCE.

PROBABLE OPPORTUNITIES FOR AMERICAN ENTERPRISE.

Consul-General William H. Michael, of Calcutta, supplies the following concerning India:

There is a demand in Calcutta for better street paving. It has been urged that the city corporation should put down "wood blocks," because they would last as long as any other kind of paving and would be more noiseless. Would it not be worth the while of American experts in street paving to look into this demand and show the Calcutta corporation what the experience of some American cities has been in the use of wood blocks and to demonstrate what has been found to be the most satisfactory kind of paving? The United States has tried every kind of material for street paving and without doubt knows more about the subject than any other country. It would pay the Calcutta corporation to avail itself of our experience and to award a contract of good size to an American company.

There is no manufacture of briquettes in India, except a very limited amount crudely made by cooly women, but it is very likely that the manufacture of briquettes as they are made in Japan will be started in India by some enterprising person before long. It is understood here that the briquette plant started at Tokuyama, Japan, a year ago, under the control of the Japanese Admiralty, which also owns and operates the Omine coal mine, which supplies the coal from which the briquettes are made, has been successful from the start. The Japan briquette factory has a capacity of 250,000 tons a year. The briquettes

retail at \$3.60 per ton, and are more economical than coal. The cakes or balls manufactured by the cooly women here sell at one pice ($\frac{1}{2}$ cent) for 2 pounds. The Japanese call the briquettes they manufacture "sogo," and the cooly woman calls her product "goul."

BONUS ON GREEN TEA—CROP NOTES.

The British Government pays to tea planters a bonus on all green tea produced in India. The quantity on which bonus, at the rate of 3 pies, or half a cent per pound, has been paid from June 1, 1906, to March 31, 1907, amounted to 1,411,371 pounds. Tea planters who raise good tea care nothing for this bonus. It is well understood that green tea is made only of inferior tea leaves, and planters do not care to proclaim to the world that their plantations are in the green tea class. It is more profitable, in the long run, planters have told me, to throw away the inferior leaves, rather than to make green tea of them, and turn off only good black tea.

The number of tea boxes manufactured in Assam in 1906, on which a royalty was realized, was 512,657, against 537,805 in 1905.

The tobacco harvest in eastern Bengal has been completed. The crop is an important one in that province, and the yield and quality are reported good.

All generating apparatus used in manufacturing acetylene gas in eastern Bengal, whether imported or manufactured within the province of India, will hereafter be inspected under the direction of the commissioners of steam boilers in Bengal, who are authorized to issue certificates required under the regulations.

An attempt will be made by the authorities in the Central Provinces to classify the various kinds of wheat grown in that region, with a view to produce by crossing a hybrid that will be immune against disease and possess at the same time good milling qualities. The work will be done at the Government agricultural stations.

CALCUTTA'S AMERICAN SHIPMENTS.

The declared value of exports from Calcutta to the United States during the calendar year 1906 exceeded \$48,500,000, the articles and their value being as follows:

Articles.	Value.	Articles.	Value.
Cotton	\$21,239	Saltpeter	\$406,379
Drugs	5,839,950	Silk, raw	122,962
Embroideries	42,072	Skins	6,669,804
Gunny bags	2,040,234	Tea	308,805
Gunny cloth	19,881,707	Wood	116,131
Hides	3,469,348	Wool	377,737
Jute	5,715,920	Miscellaneous	165,463
Jute butts and rejections	3,071,565		
Mica	278,569	Total	48,582,723
Rubber	54,838		

PERMANGANATE OF POTASH USED AS AN ANTIDOTE FOR SNAKE BITES.

Concerning the annual deaths from snake bites in India and the official efforts being made to reduce this mortality, Consul-General Michale says:

The publication of my report in Daily Consular and Trade Reports for February 6, concerning an instrument called by the inventor

"snake-bite lancet." caused considerable interest in various quarters, not only in the United States, but in other countries, as I had a request from an official in Turkey to put him in communication with somebody in India who would furnish him with a lancet.

Snake bites occur frequently in India, and they are generally inflicted by venomous snakes, like the cobra. Last year there were reported 21,797 deaths from snake bites, and it is believed by well-informed persons that the deaths reported from this cause fall 50 per cent below the actual number. The official report covering thirty years averages about the number of deaths from snake poisoning annually as that reported for 1906. The report says that "the returns are probably not very accurate." Rewards are offered in most provinces in India for the destruction of snakes, but experience has shown that this measure does not have any appreciable effect on the mortality from snake bites, and the total amounts so paid are small.

The medical officers employed at the research laboratories in India are engaged in investigating and testing the antivenomous sera and other curative agents which have been suggested, and a system of treatment of affected persons by permanganate of potash, suggested by Sir Lauder Brunton, is being tried in some provinces. The use of permanganate of potash is that employed in connection with the lancet. A sufficient quantity of the crystals for several treatments is carried in the handle of the instrument and is always on hand in case of a bite, and the person bitten is prepared on the instant to cut open the part affected and to introduce the required amount of the potash.

OMAN.

TRADE OF SULTANATE.

COMMERCE AND CONDITIONS IN AN ARABIAN COUNTRY.

Consul William Coffin, of Maskat, furnishes the following interesting report covering the foreign trade, shipping, etc., of Oman, for the year 1906:

Maskat, the capital of Oman, and the center of its trade, has about 15,000 inhabitants. The town of Matra, 5 miles distant by water, has nearly as many. Maskat is shut off from the interior by rocky, impassable hills, and even the road to Matra is 8 miles of difficult and dangerous trail, so that for all practical purposes Maskat is an island, and commerce with the interior is carried on through Matra, to which the caravans come, and in which are the date godowns. The bazaar of Matra is much larger and better than that of Maskat, and if steamers made the former their port of call instead of Maskat the latter would soon lose all its commercial importance. The harbor of Maskat is small, but good. There is much need for a breakwater, as during the prevalence of the "North-westers" it is sometimes impossible to discharge or take on cargo for two or three days at a time.

PERSIAN GULF SHIPPING AND MAIL.

The weekly mail from Europe reaches here on Mondays, being about seventeen days in transit. A letter reaches Maskat from the United

States in about thirty days. The post-office is one of the branches of the Indian postal service. A cable office is also maintained here, and telegraphic communication may be had with Europe via either Teheran or Suez. The British India Steam Navigation Company operates a weekly mail and cargo service between Bombay, Maskat, and Persian Gulf ports. This company has a monopoly of the traffic here, except through shipments to or from Europe. Their freight rates are high and their treatment of shippers leaves a great deal to be desired. There are now three lines of freight steamers operating regular services between Europe and Persian Gulf ports. The Strick and Bucknall lines both have monthly steamers from England. The Hamburg-American Line began last summer a monthly service between Hamburg and Antwerp and the Persian Gulf. A line of Russian steamers from Odessa makes the round of the Persian Gulf four or five times a year, but their sailings are irregular. Years ago there were many sailing ships owned in Maskat, but these have all disappeared excepting two. Maskat being a free port, vessels are not obliged to enter and clear.

POPULATION AND TRADING.

The population of Maskat is composed of Arabs, Hindoos, Baluchis, Persians, Turks, Africans, etc. There are a few rich Arab merchants, but the trade for the most part is in the hands of the Hindoos, some of whom have considerable capital. There is a thriving settlement of Khojas at Matra, these being immigrants of a Mohammedan sect in India and it is an industrious and thrifty community. The municipal affairs of Maskat are in a most primitive state. The streets are neither lighted nor policed, though mention has been made of the establishment of a police force by the Sultan. The supply of water is a matter of private contract with water bearers, who bring it from wells outside the town. A newspaper is unheard of, and the only existing schools outside that of the American mission are conducted by mullahs (Mohammedan priests), who rarely carry their pupils further than making them familiar with the Koran.

Maskat carries on a considerable trade with the interior, via Matra. In fact, considering the extremely unsettled state of the interior, it is remarkable that so much business is done. The custom-house at Maskat is conducted by Hindoos in the employ of the Sultan. Duty is charged on all merchandise entering the ports of Maskat or Matra, whether imports from other countries or from the interior for export. The tariff is a blanket 5 per cent ad valorem, with the following exceptions: Rifles and revolvers 26 cents, American currency, each, and 6 per cent ad valorem; and mother-of-pearl and fish, 7½ per cent ad valorem.

NEED OF A STABLE CURRENCY.

The only Omanese coin in circulation is the pice, a copper coin worth about one-fifth of a cent. The mahmudieh, a coin now extinct, is still used as the money of account, in which import duties and financial transactions with inland merchants are calculated. This system results in a great deal of unnecessary calculation and loss of time, as the values in mahmudiehs are always reduced to and paid for in either rupees or Maria Teresa dollars. The latter coin is in general circulation throughout the interior. It is an importation from Austria and circulates not only in Oman but in Aden, Abyssinia, Somali-

land, Zanzibar, and other places. In the coast towns of Oman the Indian rupee and the Maria Teresa dollar are both current.

The exchange value of the Maria Teresa dollar fluctuates. Its average value during the year 1906 was 52.8 cents United States currency. The value in December, 1906, was 56.77 cents, against 47.52 cents in January, 1906. The fictitious mahmudieh equals 11½ Maria Teresa dollars.

There are no banks in Maskat, although three merchants in town will receive money on deposit, without interest, subject to withdrawal by "hoondie," which is the native equivalent of a check; it lacks the commercial value of a check, however, as it is not indorsable. Many of the Maskat merchants do a profitable business in foreign exchange, trading in Maria Teresa dollars, buying or selling them in the various ports of the gulf. Most of them also have money to lend, but this branch of their banking is pawnbroking pure and simple.

LABOR, AGRICULTURE, AND MINERALS.

The average daily wage of the unskilled laborer or cooly is 12 cents. A mason, and there are excellent masons here, earns about 32 cents and a carpenter from 32 to 52 cents. From eight to ten hours is a working day, but that period of time is so interrupted in all classes of labor by prayers, meals, meditations, etc., that it will always be a matter of doubt how much actual toil the employer is entitled to expect for his money.

Between the coast line and the Great Desert, at the back of the Jebel Akhdar Mountains, date groves are found wherever, by infinite toil and patient irrigation, the hardy date palm can be induced to grow. Fruit and nuts are grown on the slopes of the Jebel Akhdar Range and also in a strip of fertile land about 10 or 15 miles wide which begins about 20 miles inland from Maskat and runs northward toward Cape Musandum. With few other exceptions the country is an arid, rocky, and uncultivated land.

Practically nothing is known of the mineral resources of Oman. The rocks and mountains are of volcanic origin, but I do not think any geologist ever made a prospecting tour through any part of the interior. There is a rumor that coal exists near Dhofar, on the southern coast, but it is one that has had no substantiation.

IMPORTS—COTTON PIECE GOODS FROM AMERICA.

The following statistics covering imports and exports relate to Maskat only. A number of other ports of Oman do an excellent trade, but the particulars thereof are not obtainable. Dhofar, Sur, and Sohar are the most important of these. Along the "Pirate coast," to the north, Debai and Sharjah do a thriving trade, especially Debai, where the British India steamers call fortnightly. The foreign trade of Maskat in 1906 was as follows: Imports \$1,749,240, a decrease from 1905 of \$78,483; exports \$696,410, an increase on 1905 of \$126,454.

India is down on the lists of imports as supplying practically all of Oman's coffee. A large part of the coffee importations should be credited to Yemen. The total imports of coffee in 1906 amounted to \$75,811. American oil has practically driven the Russian product out of this market. Imports in 1906, \$45,860.

A good trade in cotton prints is done with the Indian mills. There is a large consumption of cheap, gaudily colored print goods, which

are used for clothing, curtains, bed hangings, etc. The low price at which these can be produced by the mills in India cuts down the consumption of Manchester goods, and it is improbable that the United States could compete successfully for any share of this trade. A better quality of brown and white sheetings is imported every year from the United States, via Aden. These are also used for clothing. In 1905 the imports of these amounted to \$131,950, but a considerable stock was carried over, and in 1906 the imports fell to \$75,212. One merchant here handles nearly all the imports of American sheeting, and if American manufacturers would make some efforts to open up a direct connection, the business could undoubtedly be appreciably increased. The total imports of piece goods in 1906 amounted to \$265,220.

DEMAND FOR ARMS AND AMMUNITION.

The trade in arms and ammunition is the principal business of the town of Maskat, which is the distributing center in the Persian Gulf for these goods. They come principally from Belgium, and the demand is mostly for the cheaper grades of rifles. France and England do not participate in the business as much as the list of imports would indicate, for the reason that merchandise is credited in the custom-house here to the port from which it was shipped and not necessarily to the country of its manufacture. Now that France has agreed to cooperate with other nations in suppressing the arms traffic along the Somali coast, it is believed that a good deal of the trade that was formerly Jibuti's will come to Maskat. The customs returns give the countries from which arms and ammunition were drawn in 1906 as follows: United Kingdom, \$188,826; Belgium, \$160,730; France, \$84,486. India and Persia control the market here in wheat and other grain, their proximity and the cheapness of transportation effectually checking competition from any other sources of supply; total imports, \$33,251.

India is the chief source of supply of twist and yarns, though not necessarily the producer of the goods. These materials are used in the manufacture of "lunghies"—native woven turbans—and are also retailed to merchants of the smaller towns in the interior and along the coast; imports in 1906, \$67,791. In 1905 the importation of silks from India and Persia amounted to over \$150,000. The shrinkage of nearly \$90,000 in 1906 is said to have been caused by an increase in price and a marked deterioration in the Indian product. Overstocking by the merchants here also contributed to the decline; imports in 1906, \$66,634. Most of the rice consumed here comes from Burma via Calcutta. The decrease in imports for 1906 was caused by an advance in price, and the consequent tendency of merchants here to hold back orders awaiting for a break; imports, \$557,489, against \$646,555 in 1905. The coarse sugar consumed is grown in and imported from India. The imports from Great Britain represent the finer qualities for table use; from India, \$34,439; from the United Kingdom, \$20,887.

In other merchandise of all sorts, principally groceries, hardware, seeds, drugs, timber, tobacco, etc., the share of the United States is made up of boxes, shooks, waxed paper, and nails, all being materials used in date packing. The imports were in 1906: From the United States, \$69,933; from Turkey in Asia, Persia, and all other countries, \$66,237.

EXPORTS.

The principal trade of Oman is in dates, the greater part of the cultivable land being utilized as date groves. There are eight or ten varieties of the date grown for export, the finest being known as the "Fard," the best of which are shipped to the United States. A small quantity goes to France and England and India takes the remainder. The bulk of the trade is in "dry" dates, which are shipped to India. The exports were in 1906: To the United States, \$130,022; to India, \$340,261; all other countries, \$20,306; total, \$493,589.

The trade in dried limes was formerly more extensive than at present. A plague of locusts some years ago, followed by a prolonged drought, dealt it a blow from which it is just recovering. Most of the product is shipped to Persia, though India and Asiatic Turkey each taking a small proportion; total exports in 1906, \$26,217. Other exports consist of pomegranates, mangoes, custard apples, peaches, grapes, and a small quantity of bananas and lemons. India consumes almost all the product; total exports, \$22,960. Almost every village or town on the coast of Oman has its community of fishermen. The waters of the Arabian Gulf teem with many varieties of delicious fish, and these, with dates, are the principal food of the people. No particular efforts are made to build up the export trade of fish, and the trade is in the hands of small dealers who ship usually in native dhows. This business could be greatly increased with very little trouble. Total exports, \$31,659.

Maskat's exports of cotton "lunghies" or turbans were valued at \$3,695. They are woven on primitive looms, and are shipped to Berbera, Zanzibar, Somaliland, Yemen, etc., where the demand always exceeds the supply. The pearl fisheries along the coast of Oman are not very productive, as a rule, and the export of pearls for 1906 was abnormally large, due more to chance finds than to any extension of diving operations; total exports, \$49,481. Although salt appears on the list of exports, the item really represents merchandise in transit. The salt is mined on the islands near Henjam, off the Persian coast, and is brought to Maskat in dhows for the purpose of being loaded here as ballast; exports in 1906, \$3,602. Of skins, goats' hair, nuts of various kinds, hulwa (candy), sharks' fins, and senna the exports were \$33,268.

TRADE WITH THE UNITED STATES.

The United States takes a good share of the date crop. This trade promises to increase during the next year or two, as the rainfall assures a plentiful yield and the demand in America seems to be equal to any supply. During the last year a trial shipment of pomegranates and hulwa was made to the United States. "Hulwa" is a sweet-meat manufactured in Maskat and very popular locally. It is an oily, rancid, sickening, sort of candy, which will probably be shunned by even the American small boy.

The imports from the United States of piece goods, kerosene oil, shoosks, boxes, waxed paper, etc., amounted in 1906 to \$168,177. Piece goods is the most important item. The American brands are well known in the interior. The entire supply is purchased from importers in Aden, and if American manufacturers would make any efforts to get into direct connection with purchasers here the business could

assuredly be increased. Furthermore, in the face of sharp competition and imitation, the business is likely to dwindle if no efforts are made to hold it. The trade in kerosene oil will probably hold the market. This is watched from the Bombay offices of American concerns who are not afraid to take a little risk in order to get business. For instance, a consignment of over 20,000 cases of oil was delivered here last summer to be sold on commission. This method involves some little risk, but there is nothing like it for getting results.

It is difficult to suggest means by which American trade can be increased in other directions. A certain amount of American merchandise reaches Maskat through jobbers in India. The returns for this are submerged in the figures from India. I have seen American perfumery, shoes, Colt's revolvers, Winchester and U. M. C. ammunition, and other articles for sale in the bazaar. The trade could, of course, be extended with more direct methods. The native merchant is conservative. He likes to buy goods that he knows. He wants a certain amount of credit—thirty to ninety days. He is slow to experiment, and almost never buys from catalogues. His proximity to India makes that country his natural market, and it would be very difficult to dislodge the Karachi and Bombay jobbers from their hold on his trade. Under the present conditions it would be an expensive operation to drum up business direct and one which results would hardly justify, except in the line of piece goods.

ASIATIC TURKEY.

COMMERCE OF HARPUT.

THRIVING TURKISH PORT—THE UNITED STATES SHARE OF THE TRADE.

Consul E. E. Young, of Harput, reports on the commerce of his Turkish consular district, which includes the vilayets of Diarbekir and Mamouret-ul-Aziz, as follows:

The total imports into the vilayet of Diarbekir during 1906 amounted to \$2,200,224, of which \$355,200 worth was from other provinces. The imports into the vilayet of Mamouret-ul-Aziz during the same period were valued at \$1,873,510, Turkish provinces furnishing \$813,290 worth. The percentage of imports into the vilayet of Diarbekir from foreign countries was: United Kingdom, 55; Germany, 12.5; France, 10.5; Austria, 12; Russia, 2; United States, 1, and all other countries, 7. The percentage of imports into the vilayet of Mamouret-ul-Aziz was: United Kingdom, 27.5; Germany, 22; France, 12.5; United States, 10; Austria, 8.5; Russia, 8, and all other countries, 11.5. The leading articles of import into the two vilayets are shown in the following table:

Article.	Diarbekir.	Mamouret-ul-Aziz.	Article.	Diarbekir.	Mamouret-ul-Aziz.
Calicoes	\$441,600	\$70,000	Petroleum	\$96,0	\$45,000
Copper, sheet	33,600	4,500	Prints, cotton	168,000	125,000
Cotton yarn	168,000	88,000	Sacks	48,000	1,320
Hardware	144,000	7,500	Sugar	96,000	24,700
Iron	52,800	16,000	Thread, cotton	14,400	.....
Leather	38,400	7,000	Woolen goods	196,800	127,200
Paper	48,000	9,750			

The imports into the vilayet of Diarbekir from the United States amounted to about \$25,000 and into the vilayet of Mamouret-ul-Aziz approximately \$100,000. The latter is double the amount of such imports in 1905 and more than ten times as much as those of 1901. The gain in importations from the United States was largely confined to cotton goods. There is not the slightest doubt that extensive exportations of these goods to this consular district await only determined and intelligent efforts on the part of American manufacturers and exporters. Samples should be frequently sent to the consulate, and upon their receipt they will be immediately brought to the attention of interested parties.

On account of the inability of the local merchants to read English, or, in fact, any occidental language, letters and samples sent directly to them rarely receive any attention. Accompanying the samples should be a letter of advice, setting forth clearly and distinctly the price, terms of payment, and, in short, all information essential to a complete understanding upon the part of prospective buyers. Prices should be invariably quoted c. i. f. port of Samsoun, on the Black Sea. Terms of payment must be as reasonable as possible. While this consulate is not prepared to recommend the granting of wholesale credits, it is believed that the extending of a proper amount of credit to trustworthy firms would greatly increase the sales of our cotton goods in this district. All shipments should be most securely and carefully packed. The transporting of these goods from the port to this interior point on the backs of camels and mules is certain to work disaster to carelessly packed shipments.

CLASS OF GOODS IN DEMAND.

The sale of rubber overshoes is steadily increasing in this district. The majority of these rubbers now come from the United States. Those of European manufacture have been found to be short lived, though high in price. There is a steady and growing demand for all kinds of mechanics' tools. Those manufactured in the United States meet with a ready sale. The demand for clocks and watches is largely confined to the cheaper grades. During the past year several dealers have placed American-made watches and clocks on the market and have uniformly reported good sales.

The following articles meet with a ready sale: Prints, yarns, matches, velvet, paper, crockery, sheet copper, sacking, cotton handkerchiefs, and lamps. As yet America's share in this trade amounts to very little. American manufacturers of these articles will be readily furnished with full information as to the names of dealers, etc., upon application to this consulate.

With a view to increasing our exports to this vilayet, and in order that American exporters may have a better idea of the class of goods for which there is here a good market, this consulate is now engaged in making a careful collection of samples with full information concerning purchase and selling price noted thereon. These samples will be sent to the Bureau of Manufactures with the request that they be brought to the notice of American manufacturers and exporters of such goods.

EXPORTS—PROSPEROUS AGRICULTURE—AMERICAN REMITTANCES.

The exports from the vilayet of Diarbekir during 1906 were valued at \$2,126,400, of which articles worth \$942,240 went to other

provinces. United Kingdom took 33 per cent of the exports, followed by the United States with 28 per cent. The exports from the vilayet of Mamouret-ul-Aziz to foreign countries amounted to \$427,820, and to other provinces \$239,820. The United Kingdom took 43 per cent of the exports and the United States 29.5 per cent. The chief articles of export from the two vilayets were:

Articles.	Diarbekir.	Mamouret-ul-Aziz.	Articles.	Diarbekir.	Mamouret-ul-Aziz.
Almonds	\$38,400	\$75,000	Gums	\$14,400	.....
Copper	192,000	.....	Horses	24,000	.....
Eggs	7,200	.....	Mohair	72,000	.....
Furs	18,800	17,000	Sheep	228,000	.....
Goatskins	105,200	205,920	Wool	384,000	.....

More than 400,000 goat and sheep skins are exported annually from the two vilayets. Many of these skins find their way to the United States, but only after passing through the hands of many middlemen. Local exporters of these skins are desirous of entering into direct relations with American buyers.

During the past year checks and drafts to the amount of \$440,000 were received from the United States, an increase of about 45 per cent over the corresponding preceding year. Two agents of a leading American life insurance company recently spent a few weeks canvassing in this district. Forty policies for a total of \$23,000 were written.

Bounteous crops and good prices are reported throughout this entire region. Though the cotton crop was hardly up to the average, the yield in cereals was more than double that of the preceding year. Grain buyers who counted on the large yield to cause a corresponding reduction in prices have been sorely disappointed. Barley and wheat are both selling now at an advance of more than 50 per cent over the price prevailing at the time of harvest. Good pasturage and high prices have combined to make the past year a prosperous one for stock raisers.

IRRIGATION IN MESOPOTAMIA.

PETROLEUM ENGINES AND PUMPING MACHINERY ARE WANTED.

Consul William C. Magelssen, writing from Bagdad, in Asiatic Turkey, calls attention to a vast irrigation programme in that arid country and to the present demand for pumping plants. He says:

In ancient times, when the whole of Babylonian-Mesopotamia and the greater portion of the country lying between the Tigris River and the mountains of Persia and Kurdistan were artificially irrigated, these parts held the principal granaries of the world. The luxurious growth of grain upon these alluvial flats excited the wonder of the Greek travelers who visited the East, and, according to Herodotus, the soil yielded commonly two hundred fold and sometimes three hundred fold. Herodotus would not tell the whole truth for fear that his veracity might be doubted. When the Chaldeans peopled the delta of the Tigris and the Euphrates they constructed vast irrigation works, which turned the whole land from a desolate waste into one huge garden. The whole plain was studded with prosperous and populous cities, set in the midst of engirdling areas under

wheat; for it is from this region that wheat, at first found in a wild and uncultivated state, was taken and gradually transplanted all over the world.

In those days the land was protected against the inundations of the rivers and watered in seasons of drought by a stupendous system of dikes and canals, which at the present day, in a ruined and sand-choked condition, cover like a network the face of the country. Once the crown of the possessions of the powers which swayed the East, it is now a barren waste. The irrigation works of the ancients perished because the country was so torn asunder by strife that they ceased to keep them in repair. The scene of the sudden destruction which overwhelmed the cities of the plain is still visible. The river Tigris burst its bonds and temporarily engulfed a great area, and from that day to this desolation reigns supreme around ancient Opis.

EXTENSIVE PROJECTS.

But modern influences are at work also here. It is said that Sir William Willcocks, the engineering and irrigation expert, desires to crown his distinguished career by bringing back these regions to cultivation. He wants to make them once more a huge granary as of old, and to that beneficent work he seeks to devote the remainder of his life. His two principal projects are estimated to cost respectively \$20,000,000 and \$17,000,000, his calculations showing a probable return on the outlay of from 16 to 19 per cent. The schemes are feasible enough from the point of view of the irrigation engineer. The waters of the Tigris contain a greater percentage of life-giving silt than the Nile, and no region is said to be more favored by nature for the production of cereals than these. Bagdad is the center of the area which it is proposed to irrigate. It is not likely that the Turkish Government will take a very active hand in transforming this waste land, and Sir William may not live to see his schemes carried out.

RECLAIMING THE EUPHRATES VALLEY.

I find that a report made by him soon after he visited Bagdad, some two or three years ago, has awakened an interest among local capitalists and a demand has suddenly sprung up for pumping engines and irrigation machinery. The Turkish Government has deposited with the Imperial Ottoman Bank a sum of 100,000 Turkish liras, equal to \$400,000, which amount is to be expended in reclaiming certain lands on the Euphrates. The Euphrates used to follow the course shown on atlases, until some years ago it ate out the bed of the Hindiyyeh Canal; the Hindiyyeh became the Euphrates, and the bed of the old river became dry for a couple of months in the year. The former bed of the Euphrates now carries very little water, and as a result the valuable rice lands about Hillah (ancient Babylon) have gone out of cultivation and the still more valuable date gardens are rapidly dying out. I am told that the revenue has fallen from more than \$1,000,000 to \$75,000.

This has caused the Turkish Government to take action. A French irrigation engineer has been employed to improve matters, and he has prepared a scheme for a barrage across the Hindiyyeh Canal, which will, when it is completed, divide the waters of the Euphrates between the Hindiyyeh Canal and the old bed of the river.

PUMPING ENGINES FOR THE EMERGENCY.

It is estimated that the work will take three years to complete.¹ During this time the date gardens would all die out and there would be a great loss of revenue. The French engineer is therefore going to propose to the Turkish Government to dig a canal along the bed of the old Euphrates and to supply this canal with water lifted by pumps driven by oil engines situated at the place where the canal leaves the bed of the river. Correspondence on this subject should be addressed to the Hindiye Barrage Commission, Bagdad, Turkey.

The Sanieh, property of His Imperial Majesty the Sultan, is also considering the restoration of certain lands and may require a considerable number of powerful engines for irrigation purposes. For some undisclosed reason the Sultan has been for years acquiring in Mesopotamia large tracts of land, and this property is being managed by the Sanieh Administration of Bagdad. Letters concerning irrigation machinery should be addressed to it.

From the notebooks of the observations made at the British consulate-general at Bagdad, I find that the rainfall here is as follows: In 1903, 3.07 inches; 1904, 4.96; 1905, 3.19, and 1906, 4.65. Such rainfall is not sufficient for agriculture and irrigation is absolutely necessary. Pumps are needed and wanted to utilize the water of the Tigris, which is here more than 300 yards wide and very deep, practically every drop of which now goes to waste in the Persian Gulf. This is a market well worth fighting for, and I believe that it would pay those interested to send out a special representative authorized to make offers and able to make arrangements for supplying the local demand for pumping machinery. British and French engines and pumps appeared here last summer, but I find that neither French or British have made special efforts to gain this particularly inviting field, and I can not too strongly urge that now is the time for American manufacturers to act.

STYLE OF OUTFITS DESIRED.

Prices should be offered for complete pumping plants with about 25 feet of pipes made up in short lengths to suit the rise and fall of the river; engines to range from 1 to 50 horsepower. Fuel obtainable here is Russian petroleum of the Anchor brand. Engines must be simple in construction and have no electrical devices or parts. They must be safe to work in an extreme heat. The shade temperature reaches 125° F., while 170–180 is registered in the sun.

Correspondence with suggested Bagdad firms [whose names may be obtained from the Bureau of Manufactures] may be carried on in English or French. I would, however, strongly recommend that advertising and descriptive matter for distribution in these parts be printed in Arabic. It is not necessary that entire catalogues be reprinted. Attractive circular letters in Arabic showing and explaining the principal parts of an engine would be a fair beginning. The words printed on any American or European advertisement mean as little to the native of Mesopotamia as Hindustani characters do to the average American. The expense of securing Arabic advertising matter would be trifling, as it not necessary to have the work executed in the Ottoman dominions. There are numerous establishments in the vicinity of Washington street, New York City,

where the art of Arabic printing has been brought to a sufficiently high standard to merit the patronage of American manufacturers and exporters desirous of entering into business relations with Syria, Mesopotamia, and Turkish Arabia. Advertising pays in other parts of the world and it would pay here. An American firm doing business in Alexandria, Egypt, has adopted this method of bringing their business before Arabic-speaking people, and their enterprise has drawn forth much favorable comment.

I am informed that Bagdad parties have during the last few months ordered the following oil-engine pumping plants from British firms: Three $3\frac{1}{2}$ horsepower, eight 5 horsepower, six 6 horsepower, five 8 horsepower, one 17 horsepower, and two 30 horsepower.

OPENINGS FOR AMERICAN GOODS.

A POSSIBLE MARKET FOR WOODEN HOUSES IN THE LEVANT.

Consul E. L. Harris, of Smyrna, states that several inquiries have been made in Asiatic Turkey in regard to American manufacturers and exporters of wooden houses, concerning which he writes:

Over thirty years ago a wooden chapel was imported from the United States. This chapel was erected on an elevation by the sea, and in spite of the severe exposure it was subjected to it was in such good condition five years ago that it was taken apart and carried into the interior and erected once more as a chapel on a site near Ephesus. If the transportation charges from America to this port could be reduced to a minimum a good business could be gradually started in wooden houses for the suburbs, for the reason that stone houses, as now built in the suburban yillages, are somewhat costly, owing to the fact that, with the exception of the stone and the tiles, every other material has to be imported. On the other hand, there is such a uniformity in the style of country residences here that the pleasant varied characteristic of American homes would appeal to the people's taste and facilitate the introduction of wooden houses. The only objection to them would be perhaps the greater risk of fire as compared with stone houses. But this could be obviated by impregnating or painting the wood with some incombustible substance.

I wish to call the attention of American manufacturers of such houses to this market and get them interested in its possibilities. I would therefore recommend that manufacturers in that line address their catalogues and prices to this consulate, as well as any other information which would enable me to furnish correct data to interested parties.

INTEREST SHOWN IN BILLIARDS AND LAWN TENNIS.

Consul Harris adds the following relative to the popularity of billiards and tennis in Asiatic Turkey:

Billiards are used in most of the small and in all the big cafés of Smyrna, the latter often having as many as six or eight tables. Many private houses in the city also have billiard tables, and the number is steadily increasing. The tables used are chiefly of French make, with an occasional big English table of the old style. Those in private houses are mostly of English make. Pool tables are unknown in Smyrna. If American manufacturers of billiard supplies should be interested in this market, the proper way to introduce

their tables is to secure a local agent whose business it would be to call upon the proprietors of the cafés and push the trade from house to house.

There is an opportunity for American tennis supplies in Smyrna. This game is becoming very popular in these parts. There are a great many clubs with a total membership of about two hundred, not to speak of the numerous private courts which are rapidly increasing. The demand at present for balls is about 200 dozen per season. Nets, balls, and racquets have been imported thus far from England, with the exception of a few of French and American make. There is a splendid opportunity for American tennis shoes, for the reason that those of English and French make, so far used, are not giving satisfaction. American goods in this line which have reached this market have come by the way of England. Nothing has ever been done by any American dealer to work up a direct and independent trade. It could easily be done.

TURKISH OPIUM CROP.

FLUCTUATION IN THE WORLD'S DEMAND—PRESENT PRICES.

In reporting that one of the most important products of Asia Minor is opium, the greater part of which is marketed in the city of Smyrna, Consul Harris says:

The average crop of this province is 6,000 baskets of 60 okes each making a total of 450 tons, but so much depends upon the temperature prevailing after the crops are planted in October that the production often rises as high as 10,000 baskets and, on the other hand, occasionally falls as low as 4,000. In the event of the autumn-sown crops being killed by severe cold the fields are replowed and spring sown, the time for such replanting being from January to March, according to the weather.

Twenty-five years ago opium from Asia Minor, especially that produced in the regions around Ouschak and Carahissar, sold as high as \$4.40 to \$4.84 per pound, the largest consumers being the United States and South America, to which latter place it was largely exported for smoking. Great Britain was also a large purchaser of opium, on account of its richness in morphia, which made it especially valuable for pharmaceutical purposes.

Of late years Persia and India have become producers of opium, and the increasing production of these countries is steadily lowering the prices hitherto obtainable. In fact, there have been times when many thousands of cases have accumulated on this market, due to the supply being greater than the demand. At the present time opium can be purchased freely at \$2.20 to \$2.40 per pound delivered f. o. b.

It is believed that the recent prohibition of opium smoking in the Chinese Empire will have the further effect of reducing the price of this article and may even largely reduce the area now under cultivation in this district. The production last year was very low, not exceeding 660,000 pounds. During the year ending June 30, 1906, the United States imported 134,281 pounds, valued at \$590,837. The abnormal cold of the past winter severely injured the growing crop, and at one time it was believed that it would be a complete failure. Conditions, however, have since been so favorable that it is expected the yield for the coming year will be at least 5,000 baskets.

NORTH AMERICA.

DOMINION OF CANADA.

EXCELLENT COMMERCIAL SHOWING.

PHENOMENAL INDUSTRIAL GROWTH—AMERICAN INVESTMENTS.

Consul F. D. Hale, of Coaticook, furnishes the following statistics pertaining to Canada's industrial growth:

Canada's trade policy has built up a complete industrial system, the invested capital of which is to-day about \$486,000,000 as against \$146,000,000 in 1881; 15,000 manufacturing establishments with 500,000 employees are turning out products valued at nearly \$486,000,000. The textile industry is represented by 26 cotton mills with 600,000 spindles, and 300 woolen mills; 75 mills are producing wood pulp and paper with excellent prospects of further expansion. There is an excellent and growing export trade in furniture and musical instruments, and boots and shoes are being largely produced in the Province of Quebec and fast rivaling in quality and style the American product; German beet sugar is being displaced by British West Indian cane sugar imported under the preferential tariff, and the beet-sugar industry, is being successfully established in the west.

Five years ago the population of the prairie provinces was 466,000, and the grain crop amounted to 43,000,000 bushels. In 1906 the population was 1,000,000, and the grain crop was 200,000,000 bushels, one-half of this being wheat and grown on less than 4 per cent of the net area of land available for cultivation in that section. Between 1897 and 1906 nearly 900,000 immigrants have come to this country. The consumption of manufactured goods is about \$110 per capita; of this home production supplied all except \$25 per capita, while more than one-half of this importation comes from the United States. The importations are continually growing, notwithstanding the increased production. American capital to the extent of \$195,000,000 has been invested in Canada during the past few years, induced thereto by the Canadian British preference policy.

RAPIDLY GROWING FOREIGN TRADE.

THE EXPORTS TO UNITED STATES GREATLY INCREASE.

Consul-General Church Howe, of Montreal, furnishes the following résumé of Canadian foreign trade for the past fiscal year:

A recent report issued by the department of trade and commerce of the Dominion of Canada shows that during the twelve months ending March 31, 1907 (which is the date at which the fiscal year now ends), exports from Canada to the United States increased by \$20,145,508, or 22½ per cent, while the exports to Great Britain increased by

\$8,930,981, or 7 per cent, as compared with the preceding twelve months. On the other hand, imports from Great Britain increased by \$16,089,287, or 24 per cent, while imports from the United States increased by \$39,791,452, or 23½ per cent.

During the twelve months the total exports from Canada amounted to \$272,206,606, an increase of \$32,082,960, or 13½ per cent. The total imports were \$340,374,745, an increase of \$60,046,035, or 22½ per cent. The total trade for the twelve months was \$612,581,351, an increase of \$92,128,995.

THE GROWING NORTHWEST.

INVESTMENTS INCREASING—BRASS MAKING HAS BEGUN.

Consul J. E. Jones writes from Winnipeg that investments of American capital are increasing in the Canadian northwest. He continues:

American goods still command the best prices and, save in minor lines, dominate the market. But gradually as the wealth and population of this section of Canada increases her productive power grows, and, where a few years ago only a limited line of manufactures was produced, the business has spread to nearly every line demanded by the people. There is opportunity in every line of manufactured goods for the United States to increase exports to Canada. This great northwestern country is developing as if touched with the magician's wand. Thousands of desirable immigrants are settling the fertile country and creating new markets for American goods.

Canada is wide-awake to the value of her manufactures, and her producers are making material headway in many lines. This activity has had the effect of bringing a large amount of American capital to Canada. At Winnipeg a new \$100,000 brass-making plant started casting in April with a capacity of 400,000 pounds per month. It is the first plant of its kind in the Canadian northwest, and so rapidly are orders coming in that the works will soon need to be enlarged. It is estimated that the company effects a saving of between 30 and 35 per cent on the cost of the American-made goods landed here with freight and tariff charges paid. Much of the raw material used in the manufacture of brass comes from the United States duty free. This is specifically so of ingot copper, scrap brass, coke, and molding sand. Lead comes from the Canadian mines at Trail, and the block tin and zinc used are imported direct from England.

The wage scale for this work is approximately the same as in the United States. Modelers receive 32½ cents per hour, as against 35 cents in Chicago and 27½ cents in Jersey City. (Figures furnished at the works.) As against the wage scale must be considered the additional cost of living. House rent and fuel are higher in proportion than that which obtains in the United States, while foodstuffs are somewhat lower. Wearing apparel is about the same in price as that in the United States, although in the cheaper lines there are not such good values. Shoes are relatively higher. American high-grade shoes have almost an exclusive market, but the Canadian cheap shoes sell more readily. There seems to be a growing tendency in this part of Canada for American capital to seek investment in manufactures. Canada can not begin to supply the increasing demand.

KINGSTON ENTERPRISE.**CONCESSIONS GRANTED FOR LOCATION OF LEAD AND SMELTER PLANT.**

Consul H. D. Van Sant reports as follows concerning the locating of two new industries in Kingston:

In granting a site and exemption from taxation for ten years to a lead manufacturing company of New York and a local zinc company the citizens of Kingston recently voted by 1,622 in favor of that course and only 25 against. The board of trade was instrumental in bringing about the overwhelming majority. The zinc company will erect buildings to cost \$100,000 and the lead company's buildings will cost \$40,000. The lead company is an American concern, backed by American capital. Each company will employ 50 men. The Canadian government will start at once to dredge a channel to the wharves to be constructed at the smelter sites, east of the city.

The main supply of zinc ore to feed the proposed zinc smelter will be mined in the county of Frontenac, some 15 miles north of this city. Considerable bodies of zinc blende have been found at this mine, the ore being shipped to a New Jersey smelter heretofore. Other veins have been discovered in the northern portion of the county.

The lead smelter company owns mines in the county of Hastings, where they have been sinking shafts and testing properties near the small town of Bannockburn, north of Kingston. They are also installing a plant at a mine worked some years ago in Frontenac County. It is estimated that the production of pure metal will at first be about 10 tons zinc and an equal quantity of lead daily.

The city grants a free site of about 5 acres to each company and exemption from general taxation for ten years. School taxes will be levied as usual. Kingston was chosen for the smelter sites because it offers the most economical supply of fuel and on account of its favorable situation as a water shipping point and its proximity to the mines.

NAVIGATION IMPROVEMENTS.**INCREASED FERRY SERVICE ON LAKE ONTARIO.**

Regarding a new car ferry between Charlotte and Cobourg, Consul H. P. Dill, of Port Hope, Ontario, says:

The Canadian terminal of the car ferry which at first was intended to run on Lake Ontario between Charlotte (port of Rochester) and Port Hope has been changed to Cobourg, a port 7 miles east. The Dominion government will dredge the Cobourg Harbor, which is wholly of sand, while the harbor at this place is shale formation and more expensive in removal. The change will make a 7 mile longer haul for the railroad, as it is understood most of the freight coming this way will be coal and would be sent north over the Grand Trunk's Midland branch, which leaves the main line at this place.

The car ferry Ontario No. 1 was recently launched at Toronto, and is the largest ferry on the Great Lakes. The service will, it is expected, open in July and run every day in the year. The boat will also carry passengers.

NEW HIGHWAY.

ACCESS TO NEW MINING REGION AT LARDER LAKE.

Consul E. A. Wakefield, of Orillia, reports that according to the announcement made by the minister of public works of Ontario it has been decided by the government to construct a wagon road which will afford access to the Larder Lake district.

The highway will run from Boston, on the Temiskaming and Northern Ontario Railway, 153 miles north of North Bay to the lake, a distance of 14 miles. Ever since the discovery of precious metals in the region there has been a rush of prospectors into it. It is at present difficult to transport provisions to these people, and the government has come to the conclusion that a road is necessary. Moreover, it is felt that it is needed as soon as possible, and work will be commenced promptly.

CANADIAN IMMIGRATION.

FOREIGNERS FLOCKING INTO THE DOMINION IN LARGE NUMBERS.

Consul R. S. Chilton, jr., of Toronto, furnishes the following statement regarding immigration into Canada:

An article in a recent issue of the Toronto Globe states that the returns for the four months of 1907 show a total immigration into Canada from all sources of a little over 80,000, as compared with 56,369 for the first four months of 1906, an increase of about 43 per cent, and adds:

If the same rate of increase is kept up for the rest of the year, as seems entirely probable, the total immigration for the twelve months will be close to the estimate of 800,000, made some time ago by the immigration department. Although final figures for the month of April are not yet available, it is safe to say the total for the month from continental and American sources will be in the neighborhood of 38,000, an increase of about 70 per cent as compared with April of last year. Of this increase by far the largest part comes from Great Britain and the continental sources. Scotland especially is contributing a record number of immigrants this year. On the other hand, immigration from the United States has fallen off considerably, owing to the lack of transportation facilities offered by the railways in the west.

For the past four months the influx of American settlers in the west totaled 18,554, as compared with 23,423 for the first four months of last year, a decrease of 4,869. During the past few weeks the railways have been getting in better shape to handle settlers' effects, and it is probable that from now on the immigration from the United States will record large monthly increases. During the fiscal period of nine months ending March 31 last the total number of immigrants coming into Canada from the United States was 29,043, of whom 2,502 were returning Canadians. Most of these settled in the western provinces. Of the continental immigrants who came to Canada during the nine months constituting the last fiscal period, it is interesting to note that Ontario got by far the largest share. The figures for the various provinces are as follows: Maritime provinces, 6,491; Quebec, 18,063; Ontario, 32,205; Manitoba, 17,036; Saskatchewan, 4,257; Alberta, 3,474; British Columbia, 8,406.

STATISTICS FOR NINE MONTHS.

Consul-General Church Howe reports from Montreal that the Canadian immigration returns for the nine months ending March 31, 1907, show the following facts:

The largest number of immigrants coming to Canada were from England, which contributed 41,658 persons to the Dominion's population. Next in order in respect to numbers were the immigrants from

the United States, totaling 34,659, of whom some 2,500 were repatriated Canadians. Other figures for the various nationalities during the nine months were as follows:

Scotland -----	10, 729	French -----	1, 314
Ireland -----	3, 404	Swedes -----	1, 077
Russian, Polish, and Austrian		Finns -----	1, 049
Jews (about) -----	6, 000	Norwegians -----	876
Italians -----	5, 114	Dutch -----	394
Galicians -----	1, 652	Belgians -----	650
Hungarians, Austrians, Buko-		Greeks -----	545
winians, etc. -----	1, 290	Syrians -----	277
Hindoos -----	2, 124	Turks -----	232
Japanese -----	2, 042	Spaniards -----	29
Russians -----	1, 927	Negroes -----	108
Germans -----	1, 889		

ST. PIERRE.

DECLINING FISHERY INDUSTRY.

DECREASED PROSPERITY OF THE SMALL FRENCH COLONY.

Consul Charles M. Freeman reports as follows concerning the trade and fishery conditions of the French colony on the island of St. Pierre, a short distance from Newfoundland:

In the successful years of the fishery industry the imports and exports of St. Pierre often amounted to over \$6,000,000. In 1902, the last really prosperous year, the foreign trade amounted to over \$4,000,000, since which year it has declined to the following values: \$3,524,035 in 1903, \$2,689,976 in 1904, \$2,420,187 in 1905, and \$2,380,000 in 1906.

The imports in the best years amounted to nearly \$3,000,000. In 1903 they had dropped to \$1,800,000, while in 1906 they were only \$1,003,870.

The imports from the United States in 1906 amounted to \$125,320, while the exports to the United States amounted to only \$4,097. The chief imports from the United States were as follows: Flour and cereals, \$47,986; other foods, such as sugar, rice, etc., \$18,032; animal products, \$17,116; coal, \$10,947; cordage and twine, \$9,280; lumber, manufactured, \$4,037; cloths, \$3,724; miscellaneous manufactures, \$3,230; metal ware, \$2,516; leather manufactures, paints (prepared), arms and ammunition, etc.

The value of the imports from the several countries in 1906 were as follows: France, \$493,734; Canada, \$228,858; United States, \$125,320; foreign countries via France, \$45,933; Newfoundland, \$35,186; all other countries, \$73,839; total, \$1,003,870.

The steady decrease in the trade of the colony is almost wholly due to the decrease in the fishery industry. St. Pierre has been dependent on Newfoundland for bait, and the action of that province in cutting off this supply has been disastrous. Last year three French steam trawlers made their appearance on the fishing banks of Newfoundland, and it is reported that during the season of 1907 no less than twenty-five of these steam trawlers will be employed. Should this be true and should the employment of these vessels be success-

ful, it means a revolution not only in the methods employed by the French fishermen, but in the methods employed by the fishermen of all countries. For St. Pierre it will mean the abandonment of bank fishing.

MEXICO.

DEVELOPMENT OF MONTEREY.

AN EXPANDING TRADE IN THAT CITY—LOCAL IMPROVEMENTS.

Consul-General P. C. Hanna, in his annual report, states that the year 1906 was an exceedingly prosperous one for Monterey, Mexico, and the country immediately tributary thereto. Plentiful moisture in the agricultural district produced the desired results, and the harvest was plentiful. He adds:

The smelters, steel plants, mills, and factories produced more than the usual amount, old industrial plants were enlarged, and numerous small factories were established, increasing the demand for labor, with a visible increase in the wages of nearly all laborers; the pay rolls were unusually large, and the people had money to spend. As a result, the general business condition of the city was never more prosperous, and merchants purchased more goods because the local demand was greater.

CALAMINE PRODUCTION—INCREASED SALE OF AMERICAN GOODS.

The mining and shipping of calamine ore, referred to in my report in Commercial Relations for 1905 as an entirely new industry in which many Americans were interested, greatly increased during the past year, but on account of the duty charged for its admission to the United States for treatment a large amount of this ore has been shipped to Europe and the total exports from Monterey to the United States appear somewhat less than in the preceding year.

A visible increase of demand for American-made goods is proven by the large display of numerous kinds in nearly every show window and storeroom in this city; also by conspicuous advertisements of dealers calling special attention to the varieties and classes of the American goods they handle. There are now several shoe stores in Monterey handling exclusively American shoes. Such goods as machinery, agricultural implements, wagons and carriages, heavy and shelf hardware, and groceries are almost exclusively American, and there is a decided increase in the sale of American hats, clothing, woolens, dress goods, men's furnishing goods, stationery, and all kinds of drugs and drug sundries. It is conservatively estimated that of all foreign-purchased goods brought into Monterey during the year fully 85 per cent were American, showing an increase of 5 per cent over the previous year.

AMERICAN CAPITAL INVESTED—RAILROADS.

There is a large amount of American capital invested in and about Monterey, and there are many American citizens here employed in managing and operating such properties. Our citizens are part owners of all the railroads touching this city. They are financially interested in the smelters, nearly all the factories, industrial plants, and

mines, some engaged in agriculture and stock raising, the owners and publishers of two daily papers, and quite a number of American business houses are now established here. The city of Monterey saw more general improvement last year than in any other year in its history. A complete sewerage system, a modern water system, a well-equipped electric-car system, a new union station for all the railroads entering the city, and the paving of the streets, all nearing completion, will tend to give Monterey a more substantial and modern appearance.

Four railroad lines connect Monterey with the United States, and to such connections are undoubtedly largely due the great trade which exists between the United States and this district. In addition to the conveniences that the all-rail routes afford the shipper, through bills of lading to Monterey are given New York shippers over the Ward Line ships via Tampico and the Mexican Central Railway. There are also steamship connections through Tampico with Galveston and some of the other Gulf ports in the United States. It is believed that in the near future the Rio Grande River will be bridged between Matamoros and Brownsville, making another through connection by rail between Monterey and the American cities, as standard gauge roads have already been completed and only await the bridge across the Rio Grande to complete this desirable connection.

The Mexican Central has completed a line between Monterey and Saltillo, so that there are now two railroads connecting these cities. The number of railroad connections with the United States and with the other cities of northern Mexico tend to make Monterey the distributing point for large quantities of American goods, and it is destined to become the great jobbing center for northern Mexico.

EXPORTS TO THE UNITED STATES.

The exports from Monterey to the United States during the fiscal year 1905 amounted to \$11,722,478 gold, and for the calendar year 1906, \$15,261,443, of which the following were the leading articles:

Article.	Value.	Article.	Value.
Antiselenite	\$8,000	Lead:	
Bran	6,612	Antimonial	\$23,397
Calamine	\$56,517	Argentiferous	7,907,939
Glycerine, crude	5,160	Refined	527,841
Hides	\$23,856	Oranges	14,496
Ixtle	152,665	Pecans	16,157
Silver, bar	3,594,125	Skins and hair	2,358,733

MUSICAL INSTRUMENTS.

POPULARITY WITH THE PEOPLE, WHO DESIRE GOOD QUALITIES.

According to Consul-General Hanna, all Mexican life, high or low, grave or gay, is set to music. Of this national trait he writes:

A Mexican without music in his soul is not often found. The common laborer who works all day paving the streets may be found in the evening taking a leading part in an orchestra playing classic music. It is a poor house indeed that has not some sort of a musical instrument, and as prosperity in the country increases so does the business of the dealer in musical instruments. With all

their liking for music and their capability of writing it, the Mexicans have as yet taken little interest in the commercial side of it, and few musical instruments are manufactured here. Cotton goods, nails, steel rails, and various other articles of commerce are manufactured in Monterey, but as yet nobody has ever made a guitar here except, perhaps, some lone genius who manufactured one for his own use. Consequently there is a great demand for musical instruments from other countries. Guitars and mandolins are almost exclusively imported from the United States, though some come from France and Spain. Germany is supposed to be the home of the violin, and nearly all of these instruments used in this part of Mexico come from that country, though an insignificant number come from the United States.

In pianos, of which quite a number are sold here, the United States has the best of the trade, the balance going to Germany. Germany is now sending some good pianos, but as a rule the instruments made in that country are light and not durable—made for export, it is said—and the musicians of this country, who know a good instrument when they touch it, are not favorable toward them. The American manufacturers send to this country the same class of instruments that they make for their home market, and, in this instance, without making an effort to get the trade of a foreign country, they practically have it.

ORGANS AND BAND INSTRUMENTS.

In organs the United States is practically unrivaled in this country, very few of these instruments in any grade coming from Europe. But there is one general class of instruments in which the United States might do a good business, but as yet does practically none, and that is in the instruments which go to furnishing of a brass band. Nearly all the brass instruments used by the numerous bands of this country come from Germany, with a few from the United States and France, while the reed and wood instruments—clarionets, flutes, etc.—are exclusively of German make.

Comparing the prices of various musical instruments brought into this country very little difference between the various importing nations is found in an even quality of goods. The American piano, for instance, is generally preferred because it is better made, better finished, more durable and better suited to the climate, and fully equal to the German piano in tone.

It is natural in a music-loving country like this that many creditable composers should be developed, and many pieces of music composed by Mexican authors have a wide circulation throughout the United States and Europe, but as yet not much has been done in this country in the way of printing sheet music. Most of the danzas, songs, etc., composed by Mexican authors are sent abroad to be printed, and the German music publishers get the most of this. Music houses in Monterey have sent some manuscripts to American publishers hoping to get their work returned more speedily, but they complain that it takes about as long to get it from the United States as it does to get it from Germany.

[The principal dealers in musical instruments in Monterey are listed for reference at the Bureau of Manufactures.]

ELECTROPLATED HOLLOW WARE.

UNITED STATES AND GERMANY COMPETITORS FOR TRADE.

Vice-Consul-General Albert De Baer, of Mexico City, furnishes the following report on the sales of electroplated hollow ware in Mexico:

Electroplated hollow ware is mainly imported from the United States and Germany, although France and England have some trade here, the latter country's share being insufficient to entitle it to comparison with that of the United States and Germany. The American ware, while possessing the advantage of shorter transportation, has a strong competitor in Germany. Electroplated hollow ware is dealt in to a greater or less extent by practically all the jewelry and hardware houses, general house furnishing and outfitting firms, and others of that class. The grade of hollow ware dealt in by these various firms naturally differs greatly in quality—the jewelry houses usually handling nothing but the finer grades, quadruple silver plate and similar articles—while the hardware firms and smaller stores deal mainly in the cheaper and more common grades.

The customary terms of payment seem to be thirty days cash, although a discount of from 5 to 10 per cent is sometimes given. In certain instances private agreements have been entered into with certain importers, granting them three and even six months' credit. The latter term is the maximum for credit extension with American houses. The goods are chiefly imported direct from the manufacturer, although in some cases export commission houses in the United States act as intermediaries.

GERMANS GAINING CONTROL.

German control seems to be extending rapidly in this business, as in many other lines of trade, encroaching more and more upon the trade enjoyed by the American ware. This condition of affairs is largely due to the German policy of long-term credits, the manufacturing of designs to suit the taste of the buyer, careful packing, avoidance of customs entanglements by attention to the customs requirements of foreign countries, etc. The German exporter, while extending six, nine, and even twelve months' credit and charging the purchaser interest upon his account, can discount his paper at a German bank with a profit of from 1 to 1½ per cent.

The American exporter who desires to build up a successful export trade must awaken to the hard, cold fact that export business is a separate and important branch of commerce, and one requiring deep study of the varying conditions, customs, adaptability of the merchandise to the needs of the people, customs regulations, local prejudice and preference, and other details. He will find that the idea of introducing goods of home manufacture into a foreign country has not originated with him, and may be surprised to learn that for a great many years certain European countries have regarded export commerce as something distinct from domestic trade, and have been willing to adapt their business practice to the customs and requirements of the foreign lands whose markets they were striving for.

CHEAPER GRADES USED IN THE RURAL DISTRICTS.

Relative to the market afforded by Tlaxcala, Pachuca, and similar towns in this district, they can not offer a very good field for the

introduction of anything but ware of the cheaper grades, their proximity to the City of Mexico rendering it an easy matter for the prospective purchaser to procure articles of better quality in the city. The conditions which obtain in some parts of the United States where interurban electric lines have made the larger cities easy of access to the buyer residing in the country or in the smaller towns, prevail to a certain extent here, the high prices and scant variety for his selection contrasting sharply with the usually lower prices and greater assortment offered by the large city stores.

The difficulty of placing a new line of goods in a small town is enhanced by the fact that the merchants there are usually accustomed to receiving longer terms of credit than those of the large cities, and are, in a great many cases, supplied by the latter, who can, by reason of their purchase of goods in large quantities, afford to conduct a jobbing business with the country merchant, who would be unable to obtain the same rates from the manufacturer.

The best suggestion that can be offered to an American exporting house desiring to enter this field is that a representative be sent here to look over the situation. A general statement as to the possibilities would be practically valueless, as the system and business methods of different houses are greatly dissimilar, and the system and acumen with which the business is conducted, coupled with the prime factors of price, quality, and reliability of the exporting firm, will largely determine the question of success or failure.

During the last nine or ten years high-grade plated ware appears to have been steadily encroaching upon the trade formerly enjoyed by articles made of solid silver. [Names of jewelry, hardware, house furnishings, and other dealers who might be induced to handle this ware are filed for reference at the Bureau of Manufactures.]

MATCH TRADE.

THE WAX VERSUS THE WOODEN ARTICLE.

Having received an inquiry from the United States relative to the opportunity for establishing a wooden match factory in Mexico, Vice-Consul-General De Baer has investigated the cause underlying the almost universal use of the wax match or cerillo in that country. He writes:

Owing to the secrecy maintained by the manufacturers with relation to the methods of manufacture it has not been practicable to submit a very detailed report. There are said to be some 30 or 40 match factories operating in the Republic, some of the most important being La Central of the City of Mexico, Los Dos Mundos of San Luis Potosi, and El Fenix of Monterey. The annual sales are estimated at \$747,000 United States currency. The local product seems to dominate the market almost entirely, although a small quantity of foreign matches are imported, chiefly from the United States. During the fiscal year 1905 the total imports of matches of all varieties amounted to \$1,828, of which the share of the United States was \$1,747. The exceeding cheapness of the match of domestic manufacture practically makes competition prohibitive.

The waxen match is unsuitable for use in the coast region and the more tropical section of the Republic—the wooden match being used in those parts—but in other sections it is often difficult to procure

the wooden article. There are many different grades of wax matches manufactured, varying from small and slender to long and thick ones—some with only one head with igniting substance and some having both ends so treated. I am informed that the greater part of the local product consists of the "two-headed" match. The local demand provides a market for the entire output of the manufactories located in the country.

IMPORTED WOOD FOR MATCHES—SELLING PRICES.

Some wooden matches are made in this city, but these are destined mainly for shipment to the coast region. I am informed that the wooden part of the match is imported already finished, and the reason given for the nonutilization of native timbers is that there are none suitable for the purpose to be found here. I am unable to pronounce as an expert upon this matter, but it would seem that a country possessing almost every possible variety of climate with the concomitant diversity of classes of timber, should undoubtedly have growing within its boundaries some species of wood which could with economy be employed in this industry. A logical reason for the use of foreign timber may probably be the unwillingness of the manufacturer to incur the expense contingent to the establishment of the necessary plants and mills in view of the limited trade enjoyed by wooden matches.

Retail prices of the domestic cerillos (wax matches) vary from 1 centavo (one-half cent United States currency) per box for the poorer grade, to 2 and 3 centavos per box for the matches of better quality. These at 1, 2, and 3 centavos per box seem to be practically the only ones sold in this city. The average number of matches in each box is from 35 to 50. The 1 centavo per box match is said to be sold to the jobbers at 70 centavos per gross of boxes, these generally containing about 35 two-headed matches. An approximate estimate of the amount sold daily throughout the Republic will probably be from 6,000 to 8,000 gross of boxes. The chemical substances and wax used in this industry are imported from the United States, Germany, France, Spain, and Belgium. No exact statistics on the subject are obtainable. The machinery used is, I am told, of native manufacture and part of it is undoubtedly of special design. The boxes used as containers are also of domestic manufacture.

There is no Government regulation prohibiting the establishment of match factories and there are no taxes other than those levied upon commercial and manufacturing enterprises. The Mexican customs tariff imposes a duty of 1.70 pesos (85 cents) upon matches of any kind imported into this country.

The chief cause of the unpopularity of the wooden match would seem to be the comparative cheapness of the wax article. The difference in bulk which renders the slender wax match conveniently portable is a point in its favor. Parties contemplating the establishment of a manufactory of wooden matches here would have to give the question of selling price serious consideration before investing.

TRANSPORTATION NEEDS.

MARKET AT VERACRUZ FOR AMERICAN VEHICLES.

Reporting that Veracruz presents an opportunity now that ought to be taken advantage of, Consul W. W. Canada says:

There is a market in this leading Mexican port for the American vehicle, both horse and mule; harness, as a natural consequence, also, for the native article in use is not worthy of the name. Since the work of paving the streets with asphalt has commenced, several light vehicles have made their appearance on the finished streets, and their use will surely become more general when the paving work is done. There is another reason. According to the plans of the city authorities, now under consideration, a macadamized road is to be put down leading out of the city on the southerly side; experiments are already under way. On the northerly side of the city another road is to be constructed as an approach to lands that have been acquired by a company for the purpose of building up a residence section in the most salubrious part of this vicinity. The project is now well under way; in fact, one of a number of automobiles is to be put into this service has already been ordered. For a certainty this class of vehicle will also find favor with those who can make use of them for pleasure.

The authorities have created an ordinance prohibiting the use of the antiquated and cumbersome cart heretofore in use, with its three-mule team, hitched up with ropes. The cartmen are now compelled to employ a lighter cart with broad tires, and two mules instead of three. The loads are regulated by law, and as the native mule is undersized, a good American animal could haul as much as three of the mules in use here.

The use of the bicycle has of late taken a new lease of life. As soon as one of the city's streets had been finished and opened up for traffic, numerous riders were seen upon its smooth surface, and the craze is increasing daily. One motorcycle has made its appearance.

Timber Revenues in British Columbia.

Consul L. E. Dudley, of Vancouver, writes that during May 404 timber licenses, covering territory east of the Cascade Mountains, were issued by the British Columbian lands and works department. As the fee in each case was \$115, the total revenue was \$46,460. West of the same range there were issued 561 licenses, at \$140 each, the income being \$78,540. Fifty-six coal and petroleum licenses, bringing in \$51,600, made the total receipts \$130,600 for the month. No greater amount has ever been derived in one month from the lease of timber rights in British Columbia. The rush for timber continues, the investors including English, American, and local capitalists, and it is probable that the June receipts will not be far below those for May.

Vancouver's First Flour Mill.

According to Consul L. Edwin Dudley, of Vancouver, British Columbia, the first flour mill in that city commenced work on June 10, and turned out 250 barrels a day during the first six days. At present the mill is grinding only the No. 1 Manitoba hard wheat, making first-grade flour. It is expected to make at least four different grades; the intention being to market the first grade locally, shipping the cheaper grades to China and Japan. The mill has a capacity of 500 barrels a day, and the owners anticipate increasing the output to that amount shortly.

WEST INDIES.

HAITI.

COMMERCE AND INDUSTRIES.

REDEMPTION OF CURRENCY—SHORTAGE IN COFFEE CROP.

Consul J. B. Terres, in his annual report covering the commerce and industries of Haiti for 1906, writes from Port au Prince as follows:

The Government of Haiti redeemed up to January 1, 1907, \$3,177,500 of the paper currency in circulation, leaving an outstanding balance of \$7,825,248 in paper and \$2,600,000 in 5 and 10 cent nickel pieces and \$225,000 in 1 and 2 cent copper pieces. The reduction of the paper currency had the good effect to lower the rates of exchange from 506 per cent in January, 1906, for \$1 American gold to 367½ on January 1, 1907. There is but little prospect of further reduction in exchange in the near future, as the short coffee crop is the third successive one that has fallen below the average of 60,000,000 pounds, on which the Government budgetary expenses are based. Anything below that figure leaves a deficiency in the budget.

The 1905 crop amounted to only 38,853,718 pounds. In consequence the Government issued 1,000,000 nickel 10-cent pieces to tide over the situation. As the recent coffee crop again falls below the average, being only 50,584,554 pounds, the Government will be obliged to adopt some similar measure. While the resources of the Government diminish from short crops and other causes, its expenses are being augmented yearly. This causes unsettled financial conditions and a high rate of interest. Thus it is not to be expected that commercial affairs will be bright during the present year.

The new law making the import dues payable entirely in gold, which went into effect on October 1 last, had the effect of greatly reducing the imports, especially of dry goods and various other articles in which the United States had an active trade. Imports of provisions were very much reduced, yet not to such an extent as other goods. Previous to the enforcement of this law nearly all of the import duties were paid in Haitien currency, and only the export duties were paid in gold. The law has proved detrimental to commerce.

EFFECT OF FRENCH TREATY—ISLAND CROPS.

The commercial treaty with France has been renewed to take effect February next. There has been some changes from the previous one, and it may affect to some extent American trade in such articles as glassware, tablewares, jewelry, wearing apparel such as shirts, collars, socks, and like articles, the importation of which from the United States was gradually increasing. However, the effects of the advantages offered by the reciprocal treaty in the reduction made on the duties on these articles may be counteracted by their being ob-

tainable quicker and at less expense for freight from the United States.

Almost the entire coffee crop continues to be shipped to Europe, where it finds a better market than in the United States. The American consumption of Haitien coffee is, however, gradually increasing. If the bulk could be disposed of in the United States it would benefit American exports to Haiti. The production of cotton is gradually increasing and no doubt will continue and thus prove eventually to be the means of adding to the prosperity of the country. The greater part of the cotton produced here is exported to Europe, where it finds a better market than in the United States.

There was a slight decrease in the production of cocoa last year. It is expected that the production will be augmented in the future, as the planting of trees is increasing and more care is being given to the preparation of the bean for the market. Most of the cocoa is shipped to Europe. Some attention is given to rubber production and on a plantation near Cape Haitien the trees will be tapped this year for the first time. The export of cotton seed is increasing, it having no local use. The shipments of hides increased, but a slight falling off took place in goatskins. The greater part of the skins exported are sent to the United States.

The production of sugar increased during the year 1906, and the home consumption has been fairly well supplied; none of the sugar manufactured is exported. A new and quite extensive sugar plant was put in operation during the year at Aux Cayes. All the machinery was bought in the United States. Some Haitien citizens are negotiating for an extensive tract of sugar-cane land, about 3,000 acres under cultivation, for the purpose of establishing an extensive sugar plant to manufacture white cut sugar, which up to this time has not been attempted. All of this grade of sugar is imported from the United States. Owing to the increase in the manufacture of sugar the importation of the refined article has been much reduced during the past few years.

SHIPMENTS OF HARDWOODS—ISLAND DEVELOPMENT.

Shipments of hardwoods during 1906 were somewhat greater. Two American companies have made but little progress in developing this industry. Some lumber experts have been sent from the United States to examine and report on the extent of the forests and on the problem of transportation, which seems to be the most difficult point to overcome, as most of the wood is to be found in the mountains, where it is expensive to remove. There are some extensive pine forests. Other woods are plentiful, but are scattered over a large area. The companies are making preparations to push their enterprises more rapidly. The most of the woods are shipped to the United States.

All of the kerosene oil consumed in the island is purchased in the United States. During the year 1906 an American company obtained the right, through a concession made by the Government, to establish an oil refinery and to explore the different sections of the country where oil is supposed to exist and work such as may be found of sufficient importance. In case that they are unable to obtain crude oil in sufficient quantity they have the privilege of importing this article from the United States free of duty, to be refined and sold at

a fixed rate. The establishment of their plant is contemplated at an early date.

Several concessions were granted by the Government during the past year for various enterprises, including electric plants for lighting Port au Prince and Cape Haïtien. The former was given to a Belgian company, and it is said that it will commence to erect the plant shortly. Concessions were granted to different parties to work gold, copper, iron, and coal deposits said to exist though no mining operations have started. The company holding the concession for working the copper mine at Terre Neuve has been developing the principal veins, and the results so far have been encouraging. The development of the copper mine at Maitade and the coal mine at Hache have been delayed for lack of transportation for the necessary machinery, pending the completion of the Gonaves to Haïtien railroad. Tracks have been laid for 30 miles or more on this line, over which trains are running. Construction work continues. The material and rolling stock is from the United States.

The traffic of the P. C. S. Railroad increased 31 per cent over that of 1905. The company is constructing a line from Port au Prince 30 miles to Léogane. Nearly all of the material is imported from the United States. A railroad is being constructed from Port au Prince to La Coupe (Petionville), a summer resort 5 miles east.

IMPORTS AND EXPORTS.

The imports of dry goods from the United States continue to hold the lead. American manufacturers are paying much better attention to the quality and the getting up of patterns, packing, and other details. During the past year there has been considerable importation of dry goods from England, but of a very inferior quality. The weight of these goods is far below that of the American article and in every respect inferior. These are brought in by a few small importers, principally Syrians, who have seen patterns of the leading American goods, and had a cheap imitation produced, which enables them to sell cheaper. This for a time may have some effect on the imports of American goods until the deception is perceived.

The United States continues to furnish all the provisions, such as codfish, salt pork, salt beef, flour, pickled and smoked herrings, lard, cooking butter, cheese, canned goods, and many other articles of food. There has no doubt been a falling off in the importation of some of these articles during the year, owing to the depressed financial situation. The imports of furniture, lamps, hardware, carriages, harness, and many other such articles has diminished very much during the past year and will continue to diminish until there is a betterment in the condition of business.

The exports during the years ended September 30, 1905 and 1906, are shown in the following statement.

Articles	1905	1906	Articles	1905	1906
	<i>Pounds.</i>	<i>Pounds.</i>		<i>Pounds.</i>	<i>Pounds.</i>
Coffee	34,853,718	50,541,554	Peanuts	22,000	30,000
Cocoa	1,921,503	4,592,403	Wax	190,339	149,095
Cotton	3,287,669	3,465,216	Wood:		
Cotton seed	51,066	6,206,282	Cedar	740,000	613,000
Beans	239,928	334,679	Fustic	497,975	1,097,000
Hides and skins	1,269,128	659,486	Log	112,000,000	119,000,000
Honey	15,717	45,707	Mahogany	146,480	1,700,000
Pepper	456,580	494,492	White	38,000	188,000

JAMAICA.

ADVICE TO AMERICAN EXPORTERS.

VARIOUS LINES OF GOODS THAT COULD BE SOLD.

Consul N. R. Snyder, of Port Antonio, reports that he is in receipt of numerous letters of inquiry regarding trade possibilities, as well as requests for the names of wholesale and retail dealers in every branch of trade. Continuing he says:

Judging from the number of British and German traveling salesmen who visit here, it appears that these nationalities have realized the almost useless expenditure of time and money in sending out elaborate catalogues and price lists before having thoroughly canvassed the country by experienced drummers. By careful inquiry among the merchants regarding the effective use of catalogues, I find the sending out of this printed matter has fallen short of achieving the end for which it was intended. In so far as this island is concerned it is my opinion that catalogues, to be most effective, should be used as an adjunct to help the traveling salesmen by constantly reminding the native dealer of the goods offered for sale; but it is and will remain largely unsuccessful as the sole and unaided introducer of our products to these people. It has been averred by some of the local dealers that ordering goods solely from catalogues has proved most unsatisfactory.

Some American exporters have sent representatives here, but owing to the small amount of trade obtained on their first visit they were rarely sent out a second time. This is a great mistake, as it is well known that a salesman covering new territory seldom makes more than his expenses on his initial visit even in the United States. The business methods of this country differ very little from those at home, and the reason for the seeming lack of ready appreciation by the Jamaica merchant for the wares of the new drummer applies equally here as it does in our country—i. e., they prefer to deal with the firms with whom they are acquainted until fully convinced of the superiority of the goods offered or other advantage to be gained by transferring their business to a new firm.

SALESMEN SHOULD BE SENT FREQUENTLY.

In order to build up an extensive trade with this island it will be necessary for American exporters to send salesmen frequently. By so doing the local merchant will realize that the firm is making an earnest endeavor to obtain his trade and will place sample orders. Should the merchandise meet his expectations, he will subsequently order from catalogues. For some manufactures it would be well to have an agent with a large line of samples located at some central distributing point, such as Kingston or Port Antonio, remaining there long enough to become acquainted socially in order to learn the actual requirements of the trade. European manufacturers either secure the entire services of one man to represent them, or from ten to fifteen of them combine and engage an energetic salesman as their traveler. In each case these salesmen have adopted the course outlined with much success. Many local importers hold over orders for them pending their semiannual visits.

During the past six years American shoes have found great favor and are constantly coming into greater demand. This was brought about by able representatives from the manufacturers who came and displayed their goods. The same may be said of cotton goods, though not in as large a way. Sales of the following articles could be advanced if properly represented: Builders' hardware, plumbers' supplies, household and office furniture, cooking utensils, stoves, ready-mixed paints, and farming implements.

The city of Kingston, recently destroyed by earthquake and fire, and the fire insurance companies disclaiming liability, contains many merchants so financially embarrassed as to be unable to resume business—at least for a while—as they are not in a position to stock up as extensively as heretofore. This is an exceptional opportunity for American exporters to extend their business on their own account. They should send out live men to study the needs of the people, open stores, display large lines of samples, and endeavor in every way to cater to the trade.

If American merchants and manufacturers wish to extend their trade in Jamaica they must at least take as much pains to introduce their goods to these people as they do to country merchants at home. It may be suggested that the expense is too great to keep traveling men in the West Indies, but if it pays the British and German merchant to do so it will certainly pay the American, whose proximity to these markets gives him a distinct advantage over his European competitors, both in time and transportation.

REBUILDING OF KINGSTON.

GREAT BRITAIN OFFERS A LOAN—RELIEF OF DESTITUTE PERSONS.

Consul Frederick Van Dyne, of Kingston, sends the following information concerning the proposed grant and loan for the rebuilding of Jamaica:

With regard to a loan, the British Government intends to give the colonial government the option of borrowing \$3,873,000, to be secured by the revenues of Jamaica, for rebuilding Kingston. The loan is to extend for six or seven years. In addition to this loan the British Government has consented to donate \$730,000, and besides, the people of England subscribed \$243,000, which would make a total of \$4,866,000 available for relief. Of this amount, \$973,000 is to be distributed for the relief of persons who were left destitute by the earthquake. While Parliament has yet to pass upon the loan proposition, there seems to be no doubt that it will be adopted.

The prospective disbursement of nearly \$5,000,000 within the next two or three years should influence American dealers in lumber, iron, steel, cement, and other building materials to plan a vigorous campaign to secure their share of the trade. [The names of the leading Kingston dealers in hardware, lumber, etc., are filed for reference at the Bureau of Manufactures.]

MARTINIQUE.

HARBOR IMPROVEMENTS.

GOVERNMENT UNDERTAKINGS PROJECTED AT FORT DE FRANCE.

Consul C. W. Martin sends from Martinique the following translation of a letter received from the governor of that West Indian island regarding the improvements of the harbor at Fort de France:

The projects of works that we propose to undertake to facilitate the commercial transactions in the harbor of Fort de France are not yet concluded. The harbor includes two parts, separated by the peninsula of Fort St. Louis; one called Carénage comprehends a bay from 6 to 7 meters (1 meter = 37.39 inches) of draft of water, in the entrance of which is the dry dock. This dock, which has now a length of 129 meters, must receive soon a very important improvement. A project accepted by the technic committee of the public works of the French colonies department comprehends a form of 200 meters with new machinery, permitting the pumping out in five hours. The total cost for the lengthening of the dock and for the transformation of the machinery and the workshops will amount to \$347,400.

The principal part of the harbor, the one situated under the lee and at the west of the Fort St. Louis, is the bay of the Flamands. A general project comprehends in first place the building of metallic and brick wharfs for the loading and unloading of the goods. The two jetties will be constructed only if the importance of the movements of the harbor should require it. We must for the present confine ourselves to the building of wharfs estimated to cost \$193,000 and to the lengthening of the dry dock.

The town of Fort de France will be provided with abundant and wholesome water, and this project will be partially carried out in some months, and the ships will then have more facilities than now for their water supply. All these works will be executed with the help of a loan which will be placed in France by the colony. The works will be executed by public contract, and no bids will be received except those contractors of French nationality.

DUTY ON FLOUR.

FRENCH GOVERNMENT DECLINES TO CONFIRM ACT.

Consul Martin, of Martinique, West Indies, reports to the Department of State, under date of June 6, 1907, that the French Government has declined to confirm the act passed by the local government of Martinique in October, 1906, placing a duty of 4 francs per 100 kilos on foreign flour, which was reported to the Department at the time of the passage of the law. The consul states that the importations of flour from the United States in 1906 were 43,669 barrels, which quantity exceeded the imports of 1905 by 8,760 barrels.

CENTRAL AMERICA.

COSTA RICA.

FREE PORT PROJECTED.

TO BE LOCATED AT MOUTH OF COLORADO RIVER—COMMERCIAL OUTLOOK.

Consul F. M. Ryder, of San Juan del Norte, advises that the Costa Rican Government is having the preliminary engineering work done preparatory to establishing a town site at the mouth of the Colorado River, about 20 miles south of San Juan del Norte. He adds:

For some time past there have been few people living in that vicinity, where the government has maintained a few guards, but it is the intention now to improve the surroundings of what has been known as "Colorado Bar," making it attractive to permanent settlers and at the same time a self-supporting enterprise. The town will be located on the southeast side of the river, on high ground overlooking the sea and the approach to the rich and easily cultivated fruit lands lying inland and along the several small rivers and creeks which are tributary to the Colorado River. These lands are exceedingly fertile and particularly well adapted to the cultivation of bananas, plantains, and pineapples.

The fruit product is to be purchased by a responsible corporation, who will contract to take the entire crop at good prices, and the agents of the company will traverse the streams in their steam launches, gathering the fruit at stated intervals and at certain designated locations. The only assessment on imports will be a very low tax, just sufficient to defray the expense of local government.

A FREE PORT CONDUCTIVE TO PROSPERITY.

That the privileges of a free port, which it is reported will be granted the new settlement, are conducive to the upbuilding of a new town was particularly apparent in the case of Port Limon. In 1875 there was small evidence of the present thriving and progressive city. It contained only a few native shacks scattered over the point until the Costa Rican Government issued the decree declaring it a free port for the period of fifteen years. This marked the beginning of its growth, and before the expiration of the allotted time the city had made such rapid progress that it was deemed advisable to abrogate the free-port privileges, as the income from all municipal taxation had increased to such an extent that it became unnecessary to collect duties on imports for the purpose of maintaining the city government, and as the National Government required the revenue from the general tariff for prospective improvements in the port facilities the privileges were canceled. By that time Port Limon had acquired such an impetus that nothing short of a calamity could have retarded its growth, and to-day it is one of the busiest and most progressive cities of Central America. With this practical example in view it is evidently the intention of the Government to attempt the establishment of another seaport town at Colorado Bar, which is located some 40 miles north of Port Limon.

IMPORTANT NAVIGABLE WATERWAY.

The Colorado River at this point is about 200 yards wide. The bar at its entrance is considered less dangerous than at Greytown, as there is usually a sufficient depth of water, even in the dry season, for the passage of vessels of 8 feet draft. Inside the bar the channel has a depth of 20 to 25 feet, and the contour of the shore is such that it provides a well-protected harbor. The channel is on the northeast side of the river, running close to the bank, and the water is so deep right up to the shore that vessels tie up to the trees.

This river is the main outlet of the San Juan, and, at its junction with that river, diverges in a southerly direction, then easterly, forming almost a complete semicircle before emptying into the sea. A number of years ago this was comparatively a small stream, but as the lower San Juan and its tributaries became clogged with silt, washed down in time of freshets from the sand banks along the shores of the San Carlos River, there not being a sufficient body of water to keep that channel free from débris, fully four-fifths of the volume of water forced its way down the Colorado, cutting its banks and deepening its channel, thus creating an important navigable waterway.

The Government has already adopted plans for dredging several creeks which connect a series of lagoons leading to the Reventazon River, making the entire distance navigable for light-draft vessels, which will open up a valuable and extensive tract of rich banana lands, providing transportation for the fruit product direct to the ocean steamers lying in the open roadstead, or with a slight dredging of the bar these ships could enter a protected harbor to receive their cargoes.

This scheme also provides an outlet for the fruit by railroad, as a vessel drawing 6 feet of water could ascend this route to a point where the Northern Railway of Costa Rica runs alongside the Reventazon River, whence the freight could be transshipped for Port Limon; this would also afford direct communication for San José and points in the interior of Costa Rica.

An additional advantage to the business facilities of the proposed free port is the fact that the Government has located a wireless station at this point, and is preparing to construct a connecting station at San José; so that there will be wireless communication with Bluefields, Port Limon, and San José direct, which will also put this port in close touch with the news of the world. It is also said that the steamer Santa Rosa will make weekly trips, if necessary, along the coast to Port Limon.

COMMERCIAL STATISTICS.

INCREASE IN IMPORTS AND EXPORTS LAST YEAR.

The following statistics covering the foreign trade of Costa Rica in 1906 are furnished by Consul John C. Caldwell, of San Jose:

Countries.	Imports.	Exports.	Countries.	Imports.	Exports.
United States.....	\$3,964,224	\$4,171,500	Italy.....	\$159,578	.....
United Kingdom.....	1,495,526	3,943,697	All other countries.....	361,600	\$63,588
Germany.....	770,779	498,753			
France.....	343,578	130,061	Total.....	7,278,464	8,802,659
Spain.....	188,179	.....		

The increase in the foregoing imports over those of 1905 were as follows: United States, \$1,100,000; United Kingdom, \$550,000; Germany, \$150,000; France, \$90,000; Spain, \$60,000. Included in the imports from the United States in 1906 were American gold and bills to the value of \$624,613, leaving the net imports of merchandise \$3,339,611, or nearly 46 per cent of Costa Rica's total foreign purchases. Included in the exports to the United States in 1906 were gold and silver bullion and old coins to the value of \$543,208, leaving the net exports of merchandise \$3,628,352.

IMPORTS BY ARTICLES.

The following statement shows the imports from the United States, the United Kingdom, and Germany in 1906:

Articles.	From the United States.	From the United Kingdom.	From Germany.
Foodstuffs and other raw products:			
Beer.....	\$20,561	\$9,231	\$32,066
Canned goods.....	46,977	5,561	2,030
Coal.....	1,743	169,406	108
Flour.....	349,182		9
Ham and salted meats.....	56,045	1,698	663
Oils, including kerosene.....	41,189	4,906	3,919
Paraffin.....	60,594	414	1,440
All other articles.....	93,676	33,355	16,186
Total.....	669,967	224,560	56,411
Manufactured articles:			
Cotton piece goods.....	262,001	390,014	139,537
Wool, silk, and mixed piece goods.....	17,818	107,981	69,257
Drugs and medicines.....	55,071	19,306	14,591
Hardware.....	35,820	9,235	13,353
Iron—			
Construction and roofing.....	50,779	95,398	2,188
Pipes, tubes, nails, etc.....	52,926	26,639	60,447
Leather and leather goods.....	78,800	6,296	30,335
Lumber.....	61,371		
Machetes.....	27,739	6,349	2,580
Machines and machinery.....	135,506	16,462	5,652
Railway and tramway materials.....	1,093,917	180,616	74,666
Electric and mining materials.....	119,598	22	2,585
Paper.....	25,630	7,270	25,252
Tobacco and cigars.....	61,556	24,564	617
All other articles.....	596,212	380,824	274,308
Total imports.....	3,339,611	1,495,526	770,779

The principal imports from France, Italy, and Spain in 1906 were as follows: France—Cognac, perfumery, pharmaceutical products, cotton, silk, and wool piece goods, and wines. Italy—Cotton piece goods, umbrellas, parasols, and wines. Spain—Cotton piece goods, cigarette paper, printing paper, and wines.

EXPORTS BY ARTICLES.

The exports to the principal countries in 1906 were as follows:

Articles.	To the United States.	To the United Kingdom.	To Germany.	To France.
Bananas.....	\$3,095,947	\$1,340,416		
Cacao.....	25,227	22,227	\$1,095	\$12,367
Coffee.....	313,978	2,566,290	372,174	88,398
Hides.....	68,667	4,383	10,735	
Rubber.....	77,991		67	
Woods, fine.....	19,253	286	107,518	27,333
All other articles.....	27,289	10,095	2,169	1,963
Total.....	3,628,352	3,943,697	493,753	130,661

The bananas exported in 1906 numbered 8,827,729 bunches, an increase over 1905 of 1,589,729 bunches; 6,191,897 bunches went to the United States and 2,680,832 bunches to the United Kingdom.

The value of the coffee exported in 1906 was \$400,000 less than that of 1905, and the quantity less by 4,000 metric tons. The greater part of the coffee exports—76 per cent—went to the United Kingdom, and 11 per cent to Germany. The Costa Rican bean brings a higher price in Europe than in the United States.

NICARAGUA.

AMERICAN GOODS PREFERRED.

OPPORTUNITY FOR INCREASING THE ALREADY LARGE SALES.

Consul F. M. Ryder writes from San Juan del Norte as follows in regard to the mercantile imports of Nicaragua:

Fully 80 per cent of all the goods in the storehouses and upon the shelves of the stores in Bluefields are of American manufacture, but there are certain lines displayed which might be imported from the United States as well. Among these are fruit jams, canned meats, sardines, condiments, etc., put up by a firm in London; silk stockings and socks from France and Germany; cloth for men's suits and dress goods of English manufacture; toilet soap and perfumery from France and England, and sperm candles from Belgium. A large quantity of castor oil is consumed by the natives in this section, and this is imported from a London house which seems to have an extensive trade in this Republic, principally for the reason that the firm is a trustworthy one and their product is prepared with special reference to the conditions prevailing in these climates. This concern has earned a reputation for articles of a reliable grade, for which good prices are obtained. The average person here demands the highest grade of merchandise, seldom questioning the price. Consequently it is poor business judgment to ship inferior goods into this market if an exporter is desirous of building up a permanent trade.

SALT CONCESSIONS GRANTED.

CORPORATION ORGANIZED TO MARKET PRODUCT OF REPUBLIC.

Consul F. M. Ryder, of San Juan del Norte, advises that a joint stock corporation, composed of President Zelaya, Angel Caligaris, E. Palazio & Co., and Julio Wiest, has been formed for taking over the Nicaraguan salt concession, which was granted to Julio Wiest in May, 1905. The company is styled "Compañia Salinera de Nicaragua (Limitada)," and is capitalized at \$700,000. The Government grant is for a term of thirty years, dating from February 14, 1906, and gives the exclusive franchise to manufacture, sell, and export table salt in that Republic.

SOUTH AMERICA.

BRITISH GUIANA.

COMMERCE OF THE COLONY.

IMPORTS AND EXPORTS BOTH SHOW AN INCREASE.

Vice-Consul Donald Mitchell, of Georgetown, reports as follows concerning the foreign trade of British Guiana in 1906:

The imports into British Guiana in 1906 show an increase, on the whole, of \$54,000 over those of 1905, which were \$7,380,437. The leading incoming articles last year were as follows:

Staves, 813,555, against 280,250 in 1905, while the imports of lumber fell off somewhat. The difficulty in obtaining staves and their high price are matters of concern to the sugar factors and rum manufacturers. New York white-pine lumber is quoted locally at \$44 to \$46 per 1,000 feet, and pitch pine at \$48 to \$50—an increase, as compared with the 1905 prices, of \$8 to \$10 in white pine and of \$10 to \$12 in pitch pine, which accounts for the decreased imports.

The 478,000 pounds of leaf tobacco was an increase of 31,000 pounds over 1905, while those of flour, amounting to 175,462 barrels, showed an increase over 1905 of 2,462 barrels. The imports of bread and crackers were unusually large, 861,000 pounds, against 403 pounds in 1905. The prospect is for a decreased import in 1907.

Kerosene receipts were 455,000 gallons against 592,000 gallons in 1905, but somewhat larger than those of 1904. Other oils, such as lard oil and cotton-seed oil, show a falling off of 16,000 gallons, but the importation of cotton-seed oil in 1905 was over 20,000 gallons greater than that of either of the two preceding years. Leaf-lard imports were 152,000 pounds, against 333,000 pounds in 1905. The East Indians in the colony, and many of the native blacks, have begun to use the colonial-made cocoanut oil instead of lard, on account of its cheapness.

EXPORTS—SUGAR SEASON UNPROFITABLE.

The exports of colonial products in 1906 were as follows:

Sugar, 119,780 tons, of which 62,895 tons were sold to Canada, 40,454 tons to the United States, and 16,141 tons to England. There remained on hand at the close of the year 11,000 tons, almost all of which was sold to Canada in January and February, 1907, at 2½ cents per pound, cost and freight. Nearly all the sugar sold to Canada goes thither via New York, the freight to that port being from 9 to 10 cents per 100 pounds. It is claimed that only about one-third of the sugar estates, the larger ones, made any profit during the year, the majority losing money, owing to the high cost of labor, packages, etc. The sugar estates of British Guiana are classified as follows: One, of 6,000 acres; 4, of 3,000 acres each; 7, of 2,000 acres each; 24, of 1,000 acres each; 6, of less than 1,000 acres each.

Rice shipments were 9,050 bags, of 175 pounds per bag, against 825 bags in 1905. A profitable trade herein was realized during the year on account of the fact that the product was cheaper than the Indian rice landed in the West Indies. Of the 91,866 ounces of gold produced, against 95,252 ounces in 1905, 10,000 ounces were sent to the United States and nearly all the remainder to England. Diamond exports were 4,330 carats, against 5,585 carats in 1905, of which most were shipped to England and a fifth to the United States. The shipment of 830,056 pounds of balata was the largest recorded in any single year, against 489,416 pounds in 1905. Only 2,112 pounds of wild rubber were exported. An English syndicate is working with a view to establishing rubber cultivation on a large scale on the Kaisteur Plateau, on the Potaro River, 1,500 to 3,000 feet above sea level. The colonial government also purposes to establish experimental rubber plats in several districts.

The exports of other products were as follows: Rum, 23,783 puncheons; molasses, 3,868 puncheons; molascuit, 13,965 tons; charcoal, 67,067 bags; shingles, 2,117,000; timber, chiefly green heart, 188,000 feet.

THE SUBSIDIZED MAIL SERVICE.

The subsidized mail service between England and the West India Islands and British Guiana was interrupted in July, 1906, but began again in September under the very much reduced subsidy of from \$364,500 to \$85,050 per annum, one-half of this being contributed by the Imperial Government and the other half by the West India Islands and British Guiana. The reduced subsidy for the "experimental service," however, does not appear to have been either profitable to the mail company or satisfactory to anyone. So far as British Guiana was concerned it was satisfied to leave well enough alone, its chief inconvenience being the arrival of the steamer at any hour on one day (Friday) and its departure the next. A neighboring island, however, gave notice of the withdrawal of its portion of the subsidy after March 31, 1907, and the company had no other alternative than to give notice of its intention to withdraw from British Guiana. The Government is trying to make arrangements with some line of steamers to connect at Trinidad with the ocean steamers, and the Dutch West India Mail Company, whose steamers touch here on their way to Trinidad from Paramaribo, was approached with a view to the commencement of such a service in April.

CHILE.

MARKET FOR VEHICLES.

EXCELLENT CHANCE TO INCREASE AMERICAN SALES.

The opening in Chile for carriages and wagons of United States manufacture is described by Consul Alfred A. Winslow, of Valparaiso, who says:

The vehicles in use in the Republic of Chile in the main are cumbersome and antiquated. This is especially true of the public cabs and

carriages in the city of Valparaiso. They are very uncomfortable, the seat being so low, and with practically no upholstery. A better class of cabs and carriages is in use in the city of Santiago, but even there they fall far short of being up to date. In Valparaiso there are a few fairly good private rigs, but most of them are very heavy as we understand carriages at home. They are mostly manufactured in this country, but patterned largely after English and German models.

During 1905 carriages and buggies were imported to the value of \$19,649 United States gold, of which the United States furnished \$8,943 against \$6,030 for 1904, out of a total importation for that year of \$22,120. The duty on carriages is 35 per cent on a valuation of 25 cents Chilean gold, or 9.1 cents gold per kilo (2½ pounds). The carriage or coach manufactured here sells at from \$400 to \$500 United States gold.

A large majority of the vehicles in use for transporting freight and heavy articles are two-wheel carts, very clumsily made, with tires from 3 to 5 inches wide and wheels from 5 to 7 feet in diameter. As a usual thing two horses are employed, one being fastened between the shafts and the other to the outside of either shaft, with a single trace attached to a sort of saddle, with a strap or band around the breast. The driver is usually mounted on this horse and directs both animals, very largely with a short whip. All of the heavy vehicles used in Chile are manufactured in this country. The duty on wagons and carts is 60 per cent on a valuation of 40 cents Chilean gold, or 14.6 cents United States gold per kilo for carts, and 55 cents Chilean gold, or 20.1 cents United States gold for wagons. The two-wheel cart sells for from \$125 to \$150 United States gold.

There should be a good opening in Chile for American carriages and wagons. It is a recognized fact that American farm implements, labor-saving and mining machinery excel, and I feel confident if the vehicle trade were worked the American exporter could find a good market for carriages, wagons, and their parts. The cost of manufacture has increased immensely within the past two years, as the cost of labor has more than doubled during that time.

DEMAND FOR NITRATE SACKS.

Concerning the immense numbers of jute sacks annually used in the shipment of nitrate from Chile the following may be noted :

They come principally from Australia and the East Indies and cost, delivered here, about 10 cents American each. They hold about 100 kilos (220 pounds) each and are never used the second time, as the nitrate rots the fiber. During 1906 about 20,000,000 sacks were used, and the demand is constantly growing. It seems to me that here is an opening for some ingenious American to produce some substitute for these sacks that would be an improvement and a source of profit. The jute sacks are not ideal, as much of the nitrate sifts through, which makes them disagreeable to handle.

COLOMBIA.

TRADE OF CARTAGENA.

IMPORT AND EXPORT STATISTICS—SHARE OF UNITED STATES.

Consul L. T. Ellsworth, of Cartagena, in transmitting statistics covering the imports and exports at that Colombian port for the year ended June 30, 1906, furnishes the following details:

The records in the Cartagena custom-house have never been compiled, which made it necessary to send a clerk to copy the original manifests, and they had to be compiled in this consulate. While able to secure the values of the exports; in quantities of the articles imported the manifests did not show their values. The imports and exports are given in the following tables:

PRINCIPAL IMPORTS INTO CARTAGENA DURING THE YEAR ENDED JUNE 30, 1906.

Articles.	Total imports.	Imports from the United States.	Articles.	Total imports.	Imports from the United States.
	<i>Pounds.</i>	<i>Pounds.</i>		<i>Pounds.</i>	<i>Pounds.</i>
Agricultural implements.....	56,090	14,488	Iron, roofing	225,690	225,926
Ammunition	120,720	54,084	Lard	1,082,384	1,057,670
Boilers, and parts of.....	75,366	71,866	Machinery of all kinds ..	163,977	80,446
Bridge parts	117,685		Nails	372,696	213,268
Boxes of all kinds	92,272	50,878	Oil, kerosene.....	2,752,575	2,736,927
Books, printed.....	27,266	11,880	Paper of all kinds.....	259,851	51,794
Carriages and carts	29,408	22,763	Rails, steel and iron.....	2,130,607	1,635,800
Cotton, piece goods	1,599,125	685,444	Rice	8,801,283	1,236,224
Clothing, ready-made	67,341	9,376	Soap	88,160	84,413
Canned goods	275,665	135,350	Sewing machines.....	56,422	50,824
Coal	4,238,292	4,218,456	Sugar	1,499,381	474,480
Cement	1,504,985	50,391	Tallow	179,406	176,540
Corn	101,562	101,562	Wire, fence	1,412,784	1,373,092
Drugs	2,731,196	2,107,024	Ware, enameled	91,907	5,290
Flour, wheat	4,825,237	4,132,602	Wagons, railway.....	186,678	186,678
Iron, galvanized, etc.....	608,676	116,692			

EXPORTS FROM CARTAGENA DURING THE YEAR ENDED JUNE 30, 1906.

Articles.	Total exports.	Exports to the United States.	Articles.	Total exports.	Exports to the United States.
Balsam and copaiba	\$6,910	\$1,998	Turtle shell	\$9,099	
Cocoa	5,356	1,149	Tobacco	55,040	
Cattle	1,289,875		All other articles	85,004	\$2,185
Cocoanuts	4,894	385	Total merchandise.....	2,984,061	1,027,986
Coffee	987,381	666,571	Gold and silver:		
Dividivi	27,822	706	Gold	654,410	222,765
Feathers, heron	12,909	354	Silver bars	134,823	2,510
Hats	182,218	189,788	Silver coin	14,800	544
Hides	18,026	5,219	Total gold and silver.....	804,033	225,819
Ipecac	37,796	54	Grand total	\$,788,094	1,253,755
Ivory nuts	22,556	16,085			
Minerals	78,155	48,458			
Platinum	191,688	85,288			
Rubber	8,678	8,574			
Skins, goat and deer.....					
Timber, cedar and mahogany	51,264	43,852			

office, are employed by the Liberian Government as inspectors of customs. The chief receives a salary of about \$5,000 per annum and the assistant about half that sum. The business of the chief is to develop the customs resources, to punish smugglers, to enforce the laws against smuggling, and, with the approval of the Liberian secretary of the treasury, to make such rules and regulations as will place the customs on a better and more paying basis. The increase of revenue from this source has been gratifying to the authorities. For the first time in the history of the Republic the laws bearing upon the customs department have been codified and are now available.

The Government revenue from all sources in 1905 was \$295,647, and for 1906, \$357,433. The revenue from customs receipts increased from \$261,780 in 1905 to \$295,515 in 1906.

The officials of the treasury department anticipate that within four years the customs collections will almost double, and that with this and other incomes of the Government there will be no difficulty in meeting the financial obligations.

WHITE POPULATION INCREASING—HARBOR REGULATIONS.

There has been a notable increase in the white population, especially in this county of Montserrado, where there are Englishmen and Germans, with the former in the ascendency. Many of these come as employees of the Liberian Development Company to further its various enterprises, while others come as mercantile clerks, missionaries, doctors, and adventurers. It is pretty well conceded that the Liberian climate is more friendly to the existence of Europeans on the west coast than some of the contiguous colonies. The dreaded African fever is neither as prevalent nor as deadly in its results as in other sections, according to some of the best European authorities.

To board a ship on entering port before the customs officers is not allowed. A new feature of the present regulations is the uniforming of the employees of the customs department. All goods must now be landed at the Government wharf and stored in the Government warehouses instead of private warehouses, as was often done before. Receiving and landing cargo from a ship while in port ceases at 5 o'clock, unless by permit from the collector of customs, when the company must pay the officials on board 75 cents per hour and those on shore 50 cents per hour. The agent of the Elder Dempster Steamship Company, one of the lines between England and the Republic, is now made responsible for the landing of all cargoes. Formerly consignees had to get their goods ashore by private arrangements, and there was no uniformity in charges. Often consignments would be carried down the coast by impatient skippers, and consignees would be inconvenienced until the return of the ship six weeks later. This new arrangement renders the company liable for all mistakes and failures. It also gives a uniform schedule, making the landing charges \$1.20 per ton. This amount is generally prepaid by the consignor. Thus the responsibility of the local agent is increased and the anxiety of the consignee is somewhat lessened.

EXPORTS AND IMPORTS—AGRICULTURE.

No new product has been added to the exports of the country, although there are many articles which under proper development

would attract foreign purchasers to Liberia. The principal articles of export continue to be coffee, piassava fiber, palm kernel, palm oil, ginger, ivory, hides, and timber. Coffee has risen slightly in price, and there is great demand for African ginger. Liberia needs modern methods in the preparation of the coffee berry for foreign markets as well as for its cultivation on a more extensive scale. Considerable trade is being developed in Calabar beans, cocoa, and rubber. The total exports of Liberia for the year 1906 were \$777,507. Coffee continues to be the chief export to the United States.

The principal imports for the year 1906 were liquors, provisions, furniture, clothing, cottons, agricultural implements, hardware, medicines, rubber goods, metal goods, jewelry, haberdashery, crockery, kerosene, building materials, musical instruments, tobacco, wire netting, woolens, trunks, sewing machines, photos, roofing, seines, and rice. The total imports amounted to \$786,526, of which the imports from the United States amounted to only \$10,737. Liberian trade with the United States in 1906 was about five times what it has been for the past ten or twelve years. The increase may be attributed to the increasing interest taken in the United States to share in the trade advantages of the Republic. With the decided preference for American goods, a little effort by our exporters would secure in a large measure the bulk of the Liberian foreign commerce.

Liberia is an agricultural country. Its possibilities are incalculable; yet no organized effort has been made to stimulate the productive energies of the country by official effort until 1906. Under guidance of the commissioner of agriculture much of the year was spent in organizing the counties into agricultural societies. The President, in his annual message to the Legislature of 1907, remarked: "The dependence of the community, every day more obvious, upon the outside world even for necessities of life must be a source of great alarm to all patriotic citizens." He also urged the stimulation of the producing classes by the establishment of agricultural and industrial fairs on the cooperative plan, with the promise that the Government would aid in a substantial way.

RHODESIA.

MINING AND INDUSTRIAL PROGRESS.

GREAT PROSPERITY DUE TO EXPANSION OF GOLD INDUSTRY.

Consul John H. Snodgrass, of Pretoria, furnishes the following report on the mining and industrial development of the British African colony of Rhodesia:

The expansion of the gold industry in Rhodesia to the annual production of \$10,000,000 of the metal has been accomplished by the small investor and individual effort rather than by means of capital. Small reefs have been discovered in this territory, and many are confidently predicting that Rhodesia in a few years may perhaps excel the Transvaal in the production of the precious metals. Small operators with little capital by their own efforts have of late been extracting nearly one-third of the total amount of gold found, and their earnings have been spent mostly in the colony, as a consequence of which there has been a revival of trade. While such crops

as tobacco, cotton, and wool have been trying to find their way into the distant markets, local demands for grain, fruits, and fresh meats are being met more and more by the Rhodesian agriculturists themselves.

DEVELOPING LATENT RESOURCES.

Rhodesia's output of other minerals than gold has increased and several new industries have come into life during the year. Pioneer settlers along the Cape to Cairo Railroad have proved that what could be done in South Africa could also be done farther north, and some remarkable crops have been grown. The Kafue River, the bridging of which was an engineering feat only second to that accomplished at the Victoria Falls, afterwards proved to be a useful waterway, for it extends 100 miles, and several steam and sailing crafts have already been put on it. The close of 1906 saw the launching of a great scheme for the supply of electricity for the Rand, and Rhodesia is interested in this from the fact that it is the intention to derive a vast amount of that power from the Victoria Falls.

In the return of a general Rhodesian prosperity it is only natural that the railways should play an important part, though they have suffered as badly as other lines of industry on account of the long-drawn-out depression that overcast all South Africa. The report of the Rhodesian railways for the year 1906 shows that the gross earnings for the first eleven months totaled \$2,393,500, which is equal to \$2,661,000 per annum, as against \$2,316,500 in 1905; the net revenue was \$988,500, as compared with \$534,000 in 1905. This represents an annual gain of 12½ per cent in net income. An approximate estimate of the traffic during the year puts the gross earnings at \$2,711,000 and the net revenue at \$1,014,500.

South African Decrease in Imports.

The total trade of the United Kingdom with South Africa during the first three months of 1907 exhibited a falling off of about \$500,000. The South African Export Gazette also shows that the American trade there fell off still more; the exports of the United States to British Africa during the first three months of 1906 amounting to \$3,943,810, while only \$3,174,087 worth of goods were exported to that region during the same period of 1907, showing a loss of \$769,723.

South African Imports and Exports.

The imports into British South Africa for the three months ended March 31 are stated by the London Times to have been \$35,321,232 against \$43,246,507 in the corresponding period of last year. Of these, 55 per cent were from the United Kingdom. The exports, inclusive of gold and diamonds, amounted to \$58,902,710, as against \$47,494,626 last year.

OCEANIA.

COMMONWEALTH OF AUSTRALIA.

EXPANSION OF TRADE.

THE INCREASE IN EXPORTS MUCH GREATER THAN IN IMPORTS.

Consul-General John P. Bray in a report from Melbourne on Australian trade during the first quarter of this year says:

A large expansion in the exports of Australia during the quarter ended March 31, 1907, is shown over the corresponding period of last year, the increase in merchandise amounting to nearly \$19,000,000. Imports have not increased to anything near the same extent, the difference between the two quarters amounting to \$7,568,278 in favor of 1907. The following is a summary and comparison of the imports and exports of the quarters:

	Imports.		Exports.	
	First three months, 1906.	First three months, 1907.	First three months, 1906.	First three months, 1907.
Merchandise.....	\$49,729,717	\$57,297,995	\$71,165,773	\$90,018,448
Gold and specie.....	2,699,340	2,318,118	24,517,900	11,195,499
Total.....	52,429,057	59,616,113	95,683,673	101,213,947

The value of some of the leading exports during the first quarter of 1907 was as follows:

Butter.....	\$5,988,924	Lead, pig, etc.....	\$1,986,613	Rabbits' skins, etc..	\$246,804
Wheat.....	11,466,759	Leather.....	692,367	Sheepskins.....	1,631,601
Flour.....	1,525,618	Beef, frozen.....	585,211	Other skins.....	292,063
Wool.....	43,523,405	Mutton, etc., frozen.	2,152,890	Tallow.....	1,283,714
Coal.....	1,148,291	Ores (not gold).....	1,890,416	Timber.....	982,570
Copper, ingots, etc..	4,570,792	Silver.....	1,411,006	Tin, ingots.....	1,486,949
Fresh fruit.....	482,837	Hides.....	282,872	Australian wine....	116,347

The principal increases took place in butter, wool, coal, copper, fruit, lead, meat, ores, silver, tallow, and tin.

The values of some of the chief imports during the first quarter of 1907 are given below:

Apparel and dry goods.....	\$16,899,593	Iron, pig, etc.....	\$343,322	Whisky.....	\$677,606
Boots and shoes....	431,006	Jute goods.....	1,314,186	Tea.....	1,258,681
Cordage, etc.....	695,307	Leather.....	192,314	Lumber.....	1,664,007
Chemicals.....	930,328	Machinery, agricultural	563,419	Tobacco, manufactured	174,123
Earthenware.....	265,902	Machinery, other....	2,890,515	Tobacco, unmanufactured	392,677
Flax.....	832,102	Manures.....	740,777	Cigars and cigarettes	181,792
Hats, etc.....	636,465	Manufactures of metals	4,607,753	Wine.....	143,591
Iron, galvanized....	1,799,720	Kerosene.....	919,437		
Iron and steel bars, etc.....	1,147,632	Paints, etc.....	474,493		

Apparel and dry goods, cordage, chemicals, fish, currants, hats, iron, jute goods, machinery, metals, oil, spirits, tea, lumber, unmanufactured tobacco, and wine all show increases, while the loss in other lines is very slight.

FARMING AND FOODSTUFFS.

TOBACCO TRADE.

NETHERLANDS.

AMSTERDAM LAST YEAR HANDLED ENORMOUS QUANTITIES.

Consul Frank D. Hill writes that Amsterdam maintains her place as one of the foremost tobacco markets in Europe. The consul furnishes the following market and manufacturing information:

In 1869 only 352 bales of Sumatra wrapper tobacco were sold, bringing \$24,120, or 45 cents per half kilo (1.1 pound); in 1874, 7,879 bales were sold for \$874,350, or 74 cents per half kilo; in 1884, 85,142 bales brought \$6,994,800, or 53 cents per half kilo; in 1905, 207,223 bales brought \$12,794,454, or 40.2 cents per half kilo, and in 1906, 206,982 bales brought \$19,858,800, or 62 cents per half kilo. Besides, 320,988 bales of Java tobacco were sold here in 1906 at a valuation of \$6,231,000 and 17,062 bales of Borneo tobacco at \$1,005,000. Altogether there were sold in this market in 1906—a record year—545,032 bales of tobacco for the sum of \$27,135,000. First-hand sales of all kinds of tobacco in Dutch markets amounted to \$32,562,000 in 1906.

Not only is Amsterdam a great market, perhaps the most important in the world for raw tobacco, first-hand sales of Sumatra leaf, Borneo, and Java having amounted to nearly \$25,000,000 last year, but it is also the seat of a very important tobacco and cigar industry in which many thousands of hands are employed, and which contributes more even than diamonds to the city's affluence. Amsterdam is a free tobacco market. Cigars are very cheap here, very fair cigars selling retail at from 2 to 4 American cents each. The heavy import duty in the United States, \$4.50 per pound plus 25 per cent ad valorem, in addition to \$3 per 1,000 cigars internal-revenue tax, prevents effectually the importation of Dutch cigars into our country. The following is a description of one of the largest tobacco plants in the city, which has been written by one of the owners at my request:

DUTCH MANUFACTURING METHODS.

"A cigar is composed of three parts—the filler, the binder, and the wrapper. The filler forms the greatest part of the cigar, while the binder binds the filler leaves together, and the wrapper gives the fine appearance and makes the cigar air-tight to enable the smoker to withdraw its aromatic smoke. For the wrapper well-burning and fine leaves are chosen, while the manufacturer has to use those leaves for wrapper that he is sure will give a snow-white ash. The tobacco is moistened before use and then wrapped in a linen cloth for twenty-four hours to soak thoroughly. When the leaves are supple the stalks

are taken out. While the filler leaves are dried the binders and wrappers, when the stalks have been taken out with much care, are placed one on the other and then pressed, so that the leaves get smooth and without wrinkles. When this is ready the cigar maker can start working.

"The workman begins by putting straight in his left hand the necessary dried filler leaves to form the size of the cigar he is instructed to make, while he picks off on both sides enough tobacco to make the cigar pointed on both ends. He then rolls them in a supple binder. For a binder there are generally used one big and one smaller leaf. The man then takes a wrapper leaf and sees if he can cut one, two, or sometimes three covers out of the half leaf which he has already parted from the other half by taking out the stalks, so that out of one leaf four or six cigars can be rolled.

"If he finds that a side can be cut into two covers, he cuts this one-fourth leaf into an S shape and then rolls the packet he made from fillers and binders in the direction of the side ribs of the wrapper. At the end he turns the wrapper into a well-finished pasted point. It is a most important point to make a cigar draw well. The cigar must be equally filled in order to make it burn evenly. A cigar maker makes an average quantity of 400 cigars a day.

HYGIENIC RULES ENFORCED.

"When ready, the cigars are assorted and at the same time inspected to see if they are well finished. In special light rooms they are assorted into colors and then packed in cedar-wood boxes and afterwards labeled. A typical Dutch manufactory has 200 workmen, besides packers, labeling, and assorting men. There are cigar-making rooms, packing rooms, two assorting rooms, two drying rooms (for finished boxes), tobacco drying rooms, storerooms for finished boxes, and storerooms for new cigars, besides several stores for raw tobacco, etc., and what most manufactories have not this one has, and that is special lunch rooms for the workmen, specially based upon hygiene. The floors must be kept clean, no spitting is allowed, while each cigar maker has to keep his hands, as well as his working table, clean and has to take his meals in special lunch rooms in order to prevent the workmen from mixing eatables in the tobacco. [Photographs of rooms in this Dutch factory are on file at the Bureau of Manufactures.]

"Holland is the country where the cigar industry flourishes, where import duty on raw tobacco is very low indeed; and where expenses are low in comparison to other countries."

UNITED KINGDOM.

A REVIEW OF SUPPLIES AND PRICES.

The London Times sums up the tobacco trade of Great Britain and Ireland in the following article:

The position of the tobacco trade from the manufacturers' point of view does not improve as time goes on. The prices of leaf continue to advance steadily, and although the Imperial Tobacco Company, known in the trade as the "combine," has succeeded in increasing its profits to \$8,006,436 and the dividend on the deferred shares from 8 to 10 per cent, other manufacturers have to admit a falling off in profits, which they attribute mainly to the higher prices ruling for raw material. The trade as a whole may be said to be enjoying a fair degree

of prosperity, and it is significant that the only reference made by the chancellor of the exchequer to tobacco in his budget speech was that it had not quite realized his expectations. The one thing certain is that the consumption continues to increase, the total home consumption last year amounting to 93,494,000 pounds, as compared with 88,693,000 pounds in 1905, and 85,502,000 pounds in 1904. For the first three months of the present year it amounts to 24,034,000 pounds, as compared with 23,299,000 pounds in the corresponding period of 1906. Last year's total imports were on a large scale, amounting to 119,464,000 pounds, which compares with 86,868,000 pounds in 1905, and 110,996,000 pounds in 1904. The imports of unmanufactured tobacco from the United States last year were 104,392,000 pounds, as against 72,839,000 pounds in the previous year.

A somewhat curious circumstance is that, in spite of the apparently big increase in the consumption, retailers will not confess to a larger turnover; but that may possibly be accounted for by the fact that the number of dealers is steadily increasing. A somewhat ominous sign of the times is the reduction in the number of tobacco manufacturers, those in England numbering 367, a reduction of 9, as compared with the previous year; in Scotland 37, a reduction of 3, while Ireland remains the same as before, with 25. To get a smaller number than 367, in England, it would be necessary to go back nearly forty years. In Scotland the number has never been so small since the licenses were instituted.

ADVANCE IN RAW MATERIAL.

The steady advance in the cost of raw material, which is becoming a very serious matter, especially for those manufacturers who are outside of the "combine," is due to a number of causes, chief among which may be mentioned the comparative smallness of the production, the great increase in the consumption, the high cost of labor in the producing districts, and the effect upon production and wholesale distribution of artificial restrictions. The prices of raw tobacco, even from the same district, vary greatly according to quality, but an all-round advance has taken place, the values of certain varieties having been doubled. Ordinary Kentucky strips, for instance, which are chiefly used for the manufacture of cheap slag and roll tobaccos, and sold at 4 to 6 cents per pound not so very long ago, are now quoted at 12 cents per pound. Needless to say, by far the greater part of the tobacco used by British manufacturers is grown in the United States, and statistics recently issued by the American Department of Agriculture show last season's crop to have amounted to 629,000,000 pounds, valued at from \$55,000,000 to \$57,000,000. That quantity compares with 633,033,000 pounds, 660,460,000 pounds, 815,972,000 pounds, and 821,823,000 pounds, respectively, in the four preceding years. As showing the great advance that has taken place in values, it is interesting to observe that the 821,823,000 pounds crop in 1902, was valued at little more than last year's crop of 629,000,000 pounds.

FRANCE.

MANUFACTURE AND SALE OF NICOTINELESS TOBACCO.

Upon an American request, Consul-General Frank H. Mason, of Paris, has prepared the following report on the introduction of "nicotineless tobacco" in France:

What is popularly known as "Caporal Doux," or the so-called "nicotineless tobacco" in France, is simply ordinary Caporal tobacco which has been treated by washing with water until the ordinary proportion of $2\frac{1}{2}$ per cent of nicotine has been reduced to 1 per cent. In this form it is used for smoking in pipes and for the manufacture of cigarettes, which find a certain favor among smokers who prefer a light flavor or who, by reason of nervous or cardiac weakness, are wary of nicotine.

Ordinary caporal is a mixture of French, American, and oriental tobaccos, prepared by the "Régie," or Government establishments, which has a monopoly of the manufacture of tobacco, cigars, and cigarettes in this country. It has a somewhat rank, but not unpleasant flavor, and is the cheapest, most popular form of tobacco used in France for smoking purposes.

About eight months ago the French Government, finding that there was a growing demand for a so-called "Nicotineless tobacco," which had been made on a small scale by certain druggists, and which was also manufactured in Belgium, began the manufacture of a similar product by denicotinizing caporal tobacco through the action of water, which, in reducing the proportion of nicotine from $2\frac{1}{2}$ to 1 per cent also washes out other ingredients, so that the weight of the tobacco is reduced, according to the quality of the leaf, from 15 to 30 per cent. It is this loss of weight rather than the actual expense of the process which constitutes the cost of denicotinizing and explains the fact that ordinary caporal tobacco, which sells at \$2.41 per kilo (2.2 pounds), is advanced in value when denicotinized to \$3.08 per kilo.

SELLING PRICES AND EXTENT OF SALE.

The process of washing is simple, and is facilitated by the use of automatic machinery, but it requires careful and constant supervision by a skilled and trustworthy operator in order that a uniform product, containing the specified percentage of nicotine, may be obtained. "Caporal Doux" is retailed at the Government tobacco shops in packages of 50 grams for 80 centimes, or 16 cents per package, equal to about \$1.46 per pound avoirdupois.

Cigarettes of the same tobacco are sold in packages of ten each for 35 centimes, or 7 cents per packet, whereas ordinary caporal cigarettes of the same number and size retail for 30 centimes, or 6 cents per packet. Sample packages of denicotinized tobacco and cigarettes are transmitted as exhibits with this report. [They may be inspected at the Bureau of Manufactures.]

It is too soon to form any conclusion as to the extent to which denicotinized tobacco and cigarettes may be used in this country. It is now on sale in Paris and in eighty other municipalities throughout France. During the four months from January 1 to April 30 there were sold by the Régie to dealers in Paris 26,000 kilos of denicotinized tobacco, and 5,000 kilos, or 50,000,000 cigarettes, made from the same material. To smokers accustomed to full-flavored tobacco the smoke of Caporal Doux is somewhat insipid. Its one advantage is that 25 cigarettes made of it contain only the same amount of nicotine as 10 of ordinary Caporal, and its narcotic action upon the heart and nervous system is proportionately reduced.

DUTCH SPICE TRAFFIC.

SALES OF NUTMEGS, CLOVES, PEPPER, TEA, AND QUININE IN HOLLAND.

Consul-General Soren Listoe, in his annual report from Rotterdam, bearing date of March 28, 1907, reviews the spice trade of the Netherlands for the past year as follows:

In the beginning of 1906 an improvement in the market for nutmegs at last set in. The low prices realized in the auction of December, 1905, attracted attention and led to the disposal of most of the lot left unsold in the auctions, after which the March auction was looked forward to with some interest. Though foreign buyers did not afford the support expected, nearly all the nutmegs offered in

March found willing buyers at prices sometimes considerably above taxation prices, but this ended the slight livening up of the market.

Orders from abroad were scarce or did not come at all, and very shortly after buyers had increased their stocks it became plain to them that the prices paid had been too high. From that moment the market was sluggish the whole year; in the June auctions prices retrograded considerably and in September also, while it proved impossible to sell the lots offered entirely at the reduced prices. When the whole of the arrivals of the Banda product had found buyers in September, it appeared as if prices had reached their lowest point, and what had been left unsold in the June auction was bought "en bloc." The result of the December auctions was a little more favorable.

COURSE OF NUTMEG TRADE.

The arrivals for the first eleven months of the year were about the same as in 1905, when they amounted to 1,085 tons. In 1905 they were 1,093 tons, while the deliveries were somewhat less than in 1905, viz, 1,039 tons in 1905 and 922 tons in 1906.

The coarse Banda nutmeg, with from 80 to 90 to the half kilo (1½ pounds), quoted in March at 31.2 cents per half kilo, depreciated in value to about 26 cents in December; those with from 110 to 120 to the half kilo retrograded from 22 to about 16 cents, while the smaller kind, of from 140 to 150 to the half kilo, went down to 12.8 cents. The prices of the inferior kinds generally fluctuated with those of the choice kinds. Nutmegs Nos. 3 and 4, offered generally in small quantities, attracted most attention, and, compared to the choice nutmegs, fairly satisfactory average prices, sometimes even high prices, were realized. Papœa, or long nutmegs, were only offered sporadically and in very small quantities. For this kind the prices also declined. The total arrivals of nutmeg amounted to 2,402,400 pounds against 2,508,000 in 1905 and 2,237,400 in 1904. First-hand supply is at present 136,400 pounds.

MACE AND CLOVES.

There was a better market for mace than for nutmegs, especially for the choice Banda kinds, which were, however, very scarce. Offers were not large, and it was owing thereto that quotations underwent but few changes. Banda F in March, 1906, brought, according to quality, 42.8 to 45.2 cents per half kilo, and in December 40.4 to 44.8 cents. Prime Padang and similar kinds were sold in March at 40 cents, and found buyers at the same price in December. Papœa mace was now and then offered in pretty good-sized lots and fetched 24.8 to 29.2 cents. In December the price was 25.2 cents. The total arrivals of mace amounted to 695,200 pounds against 580,800 in 1905 and 719,400 in 1904. The sales were, in 1906, 497,200 pounds, while the first-hand supply is at present 30,800 pounds.

Terminal prices of Zanzibar cloves, which had already commenced to decline in 1905, continued on their downward course until the middle of February, 1906, when they were quoted at about 12 cents per half kilo. The year closed at 15.6 cents. Terminal deals, though now and then of some significance, did not in the aggregate amount to much. The principal share of the terminal deals was consummated at Rotterdam. Deals at Rotterdam and Amsterdam amounted to 95,400 mats against 61,700 mats in 1905 and 116,100 mats in 1904.

The supplies of Amboyna cloves in this country were, as in former years, very limited. Sometimes there was a little demand for this kind and then it was according to quality and tendency of the market, prices being 18 to 20.8 cents. The supplies of both kinds of cloves together increased slightly and were, according to official statistics on December 1, 435 tons against 409 tons in 1905 and 237 tons in 1904.

BLACK AND WHITE PEPPER.

During the whole of 1906 the market for black pepper was but little animated and the quotations for terminal Lampong pepper retrograded continually. In January the price was about 10.8 cents, while in November, when the lowest point was reached, it was about 8.6 cents, a lower price than had been quoted for years. Although gradually prices improved somewhat, the market did not become animated and the year closed at 9.45 cents per one-half kilo. Notwithstanding the deliveries were very important until December 1—3,232 tons against 1,747 tons for the same period of 1905, and the supply decreased—the reports of a large crop and the constant offers of Singapore and Tellicherry kinds prevented an improvement in prices. The supply was on December 1, 1905, 2,741 tons, and twelve months later, 1,994. Prices for Java pepper were regulated by those of Lampong. The Java pepper imported was principally sold by auction at prices which varied considerably, according to quality. The first-hand supply of this kind of pepper consisted at the end of the year of 770 bales.

White pepper could only be sold in 1906 at constantly declining prices, owing to the pressing offers for future delivery of the Muntok, Singapore, and Riouw kinds. Owing to these future delivery transactions the field for the commission merchants was very limited.

Total pepper arrivals in the Netherlands amounted to 56,000 bales, against 52,000 bales in 1905 and 66,000 bales in 1904. Deliveries for the first eleven months of 1906 were about 65,000 bales; in consequence the supply, compared with the previous year, has decreased about 15,000 bales. The supply of white and black pepper in London was, at the end of 1906, 1,400 tons, against 1,151 in 1905, and 1,332 in 1904. Terminal deals in Rotterdam amounted in 1906 to 256,600 bales, against 248,400 bales in 1905 and 341,000 bales in 1904, and at Amsterdam to 80,000 bales in 1906, against 82,600 bales in 1905 and 76,600 bales in 1904.

THE TEA MARKET.

Direct arrivals of tea at Amsterdam from Java amounted in 1906 to 138,100 half-kilo cases, against 142,587 cases in 1905. From fifteen auctions there were delivered last year 141,570 half-kilo cases, of which 55,001 were for domestic consumption and 86,569 for export. The expected important increase in arrivals in 1906 was not realized. About 4,000 cases less than in 1905 arrived. Especially fine yellow-pointed teas rose much in price in November, but subsequently the interest for these kinds of teas subsided. The import of the same, especially for the last auctions, was very limited and prices kept on rising. From China 1,388 cases were auctioned at Amsterdam. This tea was not as well received as expected. Better received were 287 cases of Ceylon and 177 cases of British Indian tea offered. At

Rotterdam were marketed by inscription 3,398 cases of Java tea, against 1,753 cases in 1905, 914 cases in 1904, besides 80 cases of British Indian tea.

CINCHONA BARK.

While the demand for cinchona was at the beginning of 1906 far from favorable, during the year the course of the market was better than expected. The gigantic supply with which the year commenced was, with what was imported during the year from Java, mostly sold at pretty satisfactory prices, and in the last two auctions the value of the unit augmented with more than 1 Dutch cent (\$0.004). The extraordinary large sales were, in the first place, due to the fact that consumers were in need of quinine. Nobody had confidence in the tendency of the market in 1905. It was felt that a change had to come, and everyone therefore bought as little as possible. When the fixed price limit was discontinued, quinine orders came in lively, and in the January auction of 1906 the bark could be sold at reasonable prices.

A second cause was that the Amsterdam quinine factory had retired from the convention and commenced to hold quinine sales. Quinine prices retrograded to a figure unheard of before, and the consequence was that much quinine was bought on speculation. The first auction held in January opened with an average unit price of 1.6 cents, against 1.9 cents in the last auction of 1905. The price fluctuated during the year and closed at 1.72 cents.

In 1906 there arrived 6,346 packages of Government and 68,141 packages of private cultivation, against 5,758 and 84,642 packages, respectively, in 1905. In auction and otherwise were sold 93,049 packages (88,519 bales and 453 cases), weighing together 18,794,197 pounds, containing, according to analysis, 1,023,931 pounds of sulphate of quinine, while the figures for 1905 were 13,420,656 pounds of cinchona bark and 680,277 pounds of sulphate of quinine, and in 1904, 16,856,019 and 814,392 pounds, respectively.

From the cinchona bark sold in auction, 15,863,225 pounds were factory bark, containing 918,559 pounds quinine, and 2,386,058 pounds were pharmaceutical bark, containing 73,949 pounds of quinine. The average unit value was for factory bark, 1.724 cents per one-half kilo, against 2.885 cents in 1905 and 2.6 cents in 1904. The following quantities of the several kinds of cinchona bark were sold at auctions:

Description.	Cinchona bark.		Sulphate of quinine.	
	Government crop.	Private crop.	Government.	Private.
	Pounds.	Pounds.	Pounds.	Pounds.
Ledgeriana	1,447,008	11,097,260		
Hybrides		8,289,110		825,524
Officinalis	11,517	14,817	93,086	
Schuhkraut	8,502			
Succirubra	248,813	2,137,245	7,075	66,873
	1,710,840	16,538,432	100,111	892,397

The quality of the factory bark was on an average again much higher than in the previous years, and although prices were, owing to the extraordinary large supply and sales, much lower than in 1905, the results of 1906 were not unsatisfactory. Owing to a decreased

export from Java the year terminated with a moderate supply, and the prospects are decidedly better than in the beginning of 1906.

The cinchona bark shipments from Java were, from December 1, 1905, to November 30, 1906, 14,403,100 pounds, against 15,807,000 pounds the previous twelve months. The first-hand supply of Java cinchona bark was at the end of the year: Government crop, 5,575 packages, and private crop, 15,061 packages.

As to sulphate of quinine the prices of the Amsterdam quinine factory retrograded slowly from \$6.80 and \$8 to \$4.90 and \$6 per kilo (2.2 pounds) and were, at the end of the year, \$6.10 per kilo for *Ed. II* and \$7.20 for *Ed. IV*. The Amsterdam quinine factory marketed in 12 auctions, in 1906, various lots of *Sulfas chinine Pharm. Germ Ed. IV* of which the *Ed. II* was mostly sold easily, except in the auction of December 28, when the lots offered were not granted the highest bidder.

DUTCH COCOA TRADE.

IMPORTS INTO HOLLAND—EXTENDING DEMAND WITH HIGHER PRICES.

Writing from Rotterdam, Consul-General Soren Listoe describes the cocoa market conditions in the Netherlands as follows:

The market for the article opened very sluggish in 1906, principally owing to the large arrivals, which held prices down and gave buyers the opportunity of purchasing at low figures. During the first months of the year quotations for the most desirable kinds rose somewhat, but the constant speculative offers for eventual delivery pressed them down to a lower level than at the beginning of the year. The low prices were maintained for some months, until the reports from the countries of production, predicting small crops, brought a change. Better demand then set in, as well from the side of the speculators as from the manufacturers. Besides, the consumption was increasing everywhere. Under these circumstances an improvement in prices had to take place, and in September arrivals of all kinds could be quickly disposed of at constantly rising values. The demand for consumption increased strongly, while speculators also continued buying.

The smaller crops and the small supplies of some manufacturers caused a regular augmentation in prices, owing to which the values of some kinds of cocoa rose more than 30 per cent in a few weeks. While it was then frequently tried to force the market down, the efforts in that direction were not successful; the strongly decreased supplies in the ports of storage, the smaller arrivals in the ports of shipment, and the small supplies of the manufacturers were the cause that at the end of the year prices had risen from 40 to 45 per cent, while a further rise in 1907 is not improbable.

SOURCES OF SUPPLY.

The cultivation of Java cocoa has increased somewhat. The fine qualities were always in demand in 1906, as well as the medium kinds which on an average fetched the taxation prices. Even ordinary cocoa and broken cocoa brought a pretty fair price. From Java in

1906 there arrived 15,000 bales against 9,000 in 1905, 13,500 in 1904, and 21,100 bales in 1903. Periodical auctions for 1907 were booked for January 9, February 20, April 3, May 15, July 3, August 21, October 2, and November 13.

The extension and improvement in the cultivation of the Surinam cocoa expected at the end of 1906 was not entirely realized, but, although a larger production had been counted upon, parties interested have not lost confidence. In the colony the future for the cultivation of cocoa seems to look brighter. Fine Thome, Bahia, and Trinidad cocoas were high in price. Owing thereto the cheaper kinds, like Samana, Accra, etc., were in good demand and sold at good figures, but when the local supplies were sold out and the prices rose to 17 cents per one-half kilo (1.1 pounds), and even higher, buyers withdrew.

Bahia cocoa enjoyed good demand, but the deviations from quality were always a point of consideration and superior cocoa was too high in price. Of Granada cocoa plantation qualities were, as in former years, imported in large lots. Of native cocoa the arrivals were smaller, and were about the same as of Trinidad cocoa and other equivalent kinds. Whatever was offered in medium kinds similar to the African or West Indian cocoa was soon sold, because the prices were generally reasonable compared to the kinds more generally asked for.

ARRIVALS FROM OTHER REGIONS.

Of Trinidad cocoa the arrivals were very limited, as the production had been smaller than in former years, owing to drought and unfavorable weather. The supplies in the ports of storage could for some time meet the demand, and were disposed of at steadily rising prices. Considerable interest was felt for the Venezuela kinds of cocoa, especially for the good current qualities, good-sized lots of which were imported at reasonable prices. The superior summer Arriba cocoa was of better quality than in 1905, and enjoyed the usual demand. Prices fluctuated from 16.8 to 18.8 cents per one-half kilo, at which large deals were made. Machala cocoa was constantly in good demand and, especially during the first half of the year, large lots were bought as well for immediate as for eventual delivery at from 15.2 to 16 cents. Toward the end of the year the prices of all Guayaquil kinds followed, on account of the decreasing supplies, the upward movement.

On account of the Java cocoa production, naturally but little of the Ceylon was handled in the Dutch market. When prices of Ceylon were reasonable compared with those quoted for Java cocoa in the Dutch market, lots of this kind in various qualities were purchased. The prices for the cocoa also rose. Marketed in the Netherlands were:

	1906.	1905.	1904.
	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>
Java.....	a 15,366	a 12,679	a 19,390
Surinam.....	b 276	b 781	b 572
Divers other kinds.....	444	382	1,122

* Bales of 110 pounds.

* Bales of 176 to 220 pounds.

MANUFACTURE OF COCOA.

In reporting that the manufacture of cocoa and cocoa products is a large industry of Amsterdam, Consul F. D. Hill says:

Perhaps 2,000 people are employed in the various factories. I estimate that probably \$2,500,000 is invested in this industry. The products are shipped to every nook and corner of the known world, such places as Iquitos, Peru, over 2,000 miles up the Amazon River, and Stanley Falls, far up the Kongo, being on the books of one well-known firm. Cocoa products, as well as the beans, have all risen more than 50 per cent since September last. Heavy tariff duties tend, I am informed, to restrict Amsterdam exports into the United States; and yet that export was over \$1,000,000 during the last calendar year.

Of distinct advantage to people here in the manufacture of cocoa are the low tariff duties—the Dutch tariff is seldom over 5 per cent on articles not on its free list—and the inherited skillfulness among a people whose grandfathers have preceded them in the same trade.

MEAT TRADE.

SIBERIA.

TRADE IN FROZEN BEEF AT VLADIVOSTOK.

Consul R. S. Greene sends the following report from Vladivostok concerning the frozen-meat trade of that Russian port and its subsidiary markets in Siberia:

A firm in Vladivostok has contracted with a leading Australian meat concern for the delivery at that city of 600 tons of frozen beef per month for a year, at the price of 7½ cents per pound, including cost, insurance, and freight to Vladivostok. According to the contracts the steamers bringing the meat may be held here until the cargo is all sold, but under these conditions somewhat heavy demurrage must be paid.

Last year, according to information from official and private sources, there were imported into Vladivostok from Australia and the Argentine Republic 12,191,014 pounds of frozen meat, at a price of probably about 7½ cents per pound, which would bring the total value of the importations to about \$926,990. While the steamers bringing this meat all arrived before the end of the year 1906 (Russian style), part of the cargo remained unsold three or four months later. Of the amount stated, 3,584,021 pounds came from the Argentine Republic, the remaining 8,606,993 pounds being from Australia. It is supposed that besides this about 432,000 pounds of frozen beef came from Chefoo, where the cattle were slaughtered and the dressed meat immediately placed in a refrigerator ship and frozen.

SHIPS DETAINED FOR COLD STORAGE.

On account of the lack of any cold-storage facilities ashore, the consignees have been obliged to keep a refrigerator ship in port continually, each ship ordinarily remaining here until her cargo was

sold. For a quantity of only from 500 to 1,000 tons in each, the cost of this method has been very great, the demurrage paid in this way last year having probably been about \$100,000, if not more. Now one dealer has a refrigerator steamer which he is using as a hulk for cold storage, and another dealer may do the same.

The reasons why no cold-storage warehouse has been built are several. In the first place the firms hitherto engaged in the meat business have either lacked the necessary capital or have been unwilling to invest it on account of the uncertainty generally prevailing in this country last year as to the tariff policy which the Government would adopt, internal conditions generally, and finally as to the future of the market. At present frozen meat from overseas is only admitted under special permission from the central Government, and while there is no present reason to suppose that this permission will be withdrawn, this fact adds to the uncertainty of the situation. Foreigners who might find the necessary capital are at a disadvantage as they can not hold land in this province, and it is difficult to secure even a lease for a longer term than twelve years.

PROSPECTS OF HOME SUPPLY.

As to the future of the frozen-meat business, it is generally understood here that the herds in Manchuria, Mongolia, and the nearer portions of Siberia were greatly depleted by the tremendous demand which existed during the late war. The question arises whether after three or four years the supply of cattle in the interior will not be so large as to be sufficient to supply the troops and civil population of east Siberia at a price which will entirely shut off foreign competition. This is the view held by most persons here. There would then probably be required only a small warehouse sufficient to keep enough meat for Vladivostok alone, instead of one to hold stocks for the nearer cities of the interior, which now in the spring, summer, and fall draw part of their supplies from abroad through Vladivostok.

The precarious character of the market for foreign beef is shown by the fact that this last winter, when cattle could be killed and their carcasses frozen in the open in the great cattle regions of western Siberia, a great deal of such meat came east to Vladivostok and way stations, the steadily cold weather making it possible to ship in ordinary freight cars without risk of spoiling. At that time prices fell to a level at which Australian meat could not profitably compete. A part of the break may have been due to the action of speculators who were obliged to realize quickly and to get rid of their stocks before warm weather set in, but it is nevertheless worthy of note. At present there are not proper facilities for freezing meat in the interior in warm weather and shipping to the East. Considerable meat was received on the hoof from China and Korea during the past year besides the frozen meat.

On account of the large number of troops in this region the merchants holding contracts for supplying them with meat are at a considerable advantage in the business, having a sure sale for a large part of what they import. For this purpose common grass-fed stock meets the requirements and it is the kind at present exclusively used here, though it is a question whether the private market corn-fed

stock would not be popular once introduced, even if it were more expensive. [Further details of the Vladivostok meat contracts and as to dealers there may be secured by the American trade from the Bureau of Manufactures.]

GERMANY.

STATISTICS SHOW INCREASED CONSUMPTION OF HORSE AND DOG MEAT.

Consul George N. Ifft, in reporting that high-priced meat has greatly increased the consumption of horse flesh and dog meat throughout the German Empire, especially in the densely populated industrial centers, writes from Annaberg:

During the year 1906 there were slaughtered for food in the Kingdom of Saxony (which constitutes one thirty-sixth of the area and contains about one-thirteenth of the population of the Empire) 12,922 horses and 3,736 dogs. This is an increase of 224 horses and 133 dogs over the year 1905. In all Germany, during the year 1906, there were slaughtered for food 182,000 horses. This is an increase of about 20,000 over 1905 and of about 47,000 over 1904.

Complete figures in regard to the slaughter of dogs for food in the German Empire I have not been able to secure, but fragmentary statistics indicate that the total number was about 7,000—probably more, rather than less.

In the city of Chemnitz alone 698 dogs were slaughtered in 1906, an increase of 88 over 1905, and during the same period 1,070 horses, an increase of 87 over 1905. While these two items show an increase of 175, the total number of animals slaughtered for food in that city during 1906 was 1,685 less than in 1905. Saxony also consumed 214,640 head of cattle (steers, bulls, and cows), 422,831 calves, 1,112,714 swine, 206,082 sheep, and 74,247 goats. These latter figures, excepting those for the goats, are all slightly lower than those for 1905.

ADVERTISING HORSE FLESH—DOG SLAUGHTERING.

Horse flesh is very generally advertised in the German newspapers, especially in those of the large industrial centers, and most German cities have at least one market which makes it a specialty, claiming for it a higher percentage of nourishment than that of either beef, veal, mutton, or pork. Neither is it unusual to find advertisements of dog meat or for the purchase of dogs for slaughter.

Nor is it possible to read the German newspapers for any length of time without coming to the conclusion that a great many dogs are killed and eaten that do not give up their lives under official inspection. News items detailing the arrest, trial, conviction, and punishment by fine or imprisonment of men charged with killing and eating dogs that belonged to others, sometimes valuable animals or cherished household pets, are not infrequent. Quite recently such an item told how the police at Cassel, a city of Hesse-Nassau, while searching for a lost dog, for whose recovery a reward was offered, located a private dog slaughterhouse and arrested four men who were apparently making a regular business of stealing and killing dogs. Several live dogs, several freshly slaughtered carcasses, and evidences of the slaughter of dozens of other dogs were found on the premises.

ENGLAND.

PUBLIC SENTIMENT READY FOR AN EDUCATIONAL CAMPAIGN.

A significant suggestion is made by Consul L. A. Lathrop, of Bristol, in his annual report, where he reviews the importation of food products from the United States. The consul says:

A number of inquiries have come during the year from American packers of meats and provisions as to local conditions. The reply until lately invariably has been to the effect that any general campaign of advertising was premature. There have been signs of late, however, of reestablishment of public confidence in these products. Local newspapers have commented favorably on contracts made by British public authorities with Chicago packers. From time to time, also, paragraphs have appeared about the effective system of Government inspection now established in our packing houses. It is generally allowed throughout England that our meat products meet a "felt want," and I think 1907 will witness a large increase in consumption. Bristol and its district being far less thickly populated than the North, and being surrounded by agricultural and grazing counties, is not the most important English market for our packers. It may be expected, however, to follow the lead of the manufacturing districts in its consumption of canned meats.

The simple and lower-priced products, the ones which are the valuable adjuncts to the workingman's dietary, are, I think, the things which it would pay to push with energy. The luxuries and delicacies—the additions to the table of the more well-to-do classes—must surmount prejudice of more lasting character.

Our canned vegetables, with the exception perhaps of tomatoes, are practically unknown here, though one or two stores in Bristol and Bath sell the canned corn. The products of one American firm are, however, somewhat known, owing to their spirited policy, and to the energy and capital which they have invested in bringing their goods to the notice of consumers throughout the country.

The milling capacity of England has been increased during the year by four large mills at Tidewater, two of which are on the Bristol Channel; thus the inevitable process goes on, of lessening the import of flour, of increasing the import of wheat.

ARGENTINA.

USE OF BORACIC ACID WILL EXCLUDE MEAT IMPORTS.

Mr. A. M. Beaupré, minister to Argentina, has furnished the Department of State with a report confirmatory of his despatch of May 15, 1907, in relation to the prohibition of the admission of ham containing boric acid into Argentina. The minister's report, which is dated May 28, is as follows:

I have just received a note from the minister for foreign affairs saying that the minister of agriculture had lately proved by a chemical analysis the existence of boric acid in a lot of ham which had been brought from abroad, and which, therefore, was refused admission under the provisions of the animal police sanitary law. The minister for foreign affairs suggests, in view of the fact that several

countries permit the use of boric acid in the preservation of such products, the advisability of my informing you of the action taken by this Government, to the end that the interested parties, if any, in the United States be notified not to ship ham containing boric acid, and thus avoid the loss that would be sustained by a refusal to receive the products here.

PARAGUAY.

NO MARKET FOR AMERICAN CANNED MEATS.

Replying to an inquiry made by a Chicago packing house, Consul J. N. Ruffin, of Asuncion, writes as follows:

The possibilities existing here for canned meats, etc., are not great. Paraguay is a meat country—that is, a great cattle-raising country, and meat is very cheap; there is also a canning establishment here. Something might be done in the meat-extract line. Some hams are imported, principally from England. I do not think American packing houses are represented here at all. As to successful introduction, exporters must be prepared to give six months' credit. I send the name of a commission merchant who might act as representative, who can be addressed in English, and the names of importers, all in Asuncion. All communications with these latter should be in Spanish and all printed matter in the same language. [The names mentioned are on file in the Bureau of Manufactures.]

AGRICULTURE.

BRITISH WEST INDIES.

GOVERNMENT BOTANIC STATIONS SUPPLY FARMERS WITH PLANTS.

Consul William W. Handley, of Trinidad, supplies the following information concerning the government distribution of economic plants and seeds in the British West Indies:

The work being done by the botanic stations in the British West Indies in encouraging the more extensive cultivation of economic plants is growing each year and showing favorable results. In the absence of private nursery establishments, such as exist in northern latitudes, the value of this distributing function of these institutions has been especially realized, for at all of them nurseries are maintained for the purpose of raising plants for sale at a very low price or gratuitous distribution. Planters and settlers who have not the facilities for raising their own plants are enabled to get a start of several months in laying out plantations. Over 161,000 cacao plants have been distributed from these institutions during the last five years, principally from Dominica, St. Vincent, St. Lucia, and Trinidad. Of rubber plants, planters obtained over 22,000 during the same period. Perhaps of greater significance are the indications of the extension of the planting of lime trees. The demand for lime plants from the Dominica Botanic Station has been greater than the supply. At this station alone over 200,000 plants have been dis-

tributed during the last six years, in addition to 12,000 plants of the spineless lime. This number is sufficient to plant, at 15 feet apart, 1,000 acres of land. At St. Lucia it is estimated that 54,600 lime plants have been distributed during the last five years.

Planters have also much appreciated the assistance of the botanic stations in supplying budded or grafted plants of fruit trees. This has enabled them to obtain the best varieties of citrus fruits, mangos, etc. As comparatively few plantations have employees who are capable of carrying out this important work, planters have been obliged to rely upon the British botanic stations for a supply of such plants.

FOREIGN PLANTS DISTRIBUTED—SUGAR CANE AND COTTON.

These stations also serve a useful purpose as agents in distributing plants received from other stations in the West Indies or from abroad. A very valuable collection of economic plants has been received from the Royal Botanic Gardens at Kew; also from some of the botanical establishments in the East. This branch of the work is especially noticeable in connection with the growth of new varieties of sugar cane. In the islands where experiments are being conducted to find varieties of sugar cane which are disease resistant, or which give a higher yield of sugar, tops of selected canes are always available for distribution among planters. Some of these are recommended only for cautious trial, others for more extensive planting. The botanic stations in islands where such experiments are not being conducted have been in a position to import tops of all the newer seedlings for local distribution.

Teachers in charge of elementary schools receive assistance from the nurseries in establishing school gardens. Not only is advice freely given, by the local officers, in the choice of suitable locations and kindred matters, but vegetable seeds and plants have in many cases been presented.

Much of the success achieved in connection with the cotton industry has been due to the fact that when the industry was first started on commercial lines the imperial department of agriculture of the West Indies imported sufficient selected seed from the Sea Islands to plant 7,000 acres. Since then practically 80 per cent of all the selected seed sown during the last three years has been supplied by the department through the botanic stations. Similar assistance was rendered in the case of the onion industry, the department importing the seed each year from Teneriffe.

There is no doubt that these botanic stations by their nursery work are accomplishing a great deal of good and rendering valuable assistance to owners of plantations in the British West Indies.

TRINIDAD BANANA INDUSTRY.

A letter dated March 11, addressed to the Crown agents by the British West Indian Fruit Company, Limited, of London, gives notice of its intention to terminate the contract entered into by the company with the government of Trinidad for the purchase of bananas. It is not the company's intention to cease purchasing bananas in Trinidad. The company says that the chief difficulty hitherto encountered has been to secure in Trinidad bananas of good

quality in sufficient quantities to fill the insulated spaces put at its disposal by the Royal Mail Steam Packet Company.

GREECE.

GOVERNMENT ESTABLISHING FARM COLONIES FOR BALKAN REFUGEES.

Consul-General George Horton, of Athens, reports as follows concerning the plans of the Greek Government to aid the Balkan refugees now in their capital city:

There are at present about 12,000 refugees in Greece, principally concentrated in the city of Athens. They are Greeks with their families, who have fled from their homes and lands in eastern Roumelia, Bulgaria, Roumania, and the Caucasus. The Greek Government and people have undertaken to care for these refugees—those who have already arrived and the new ones who are coming by nearly every steamer.

For their temporary relief various buildings have been rented in the city of Athens, where they are housed, with yards for the children to play in. Clothing is furnished to all who are in need, and an allowance of 60 centimes (11 cents) a day is made per head for food.

In addition to this much is being done by private effort, but it will be impossible, of course, to support this large and increasing body of human beings for an indefinite period.

For their permanent establishment the Chamber of Deputies has voted and passed a bill for the founding of an agricultural bank in Thessaly and for the partition of a large tract of land among the refugees.

The lands to be distributed were purchased by the Government at a price of 5,000,000 drachmas (1 drachma worth about 18 cents), although a portion of them acquired several years ago have more than doubled in value. Each family will receive either 80 or 150 stremmas, according to the quality of the land (1 stremma equals 50.21 square rods). Besides this, each family of refugees will receive 1 stremma for building purposes, 2 stremmas for an irrigated garden, and 3,000 drachmas in money—1,000 drachmas for building a house, 1,000 for purchase of two work animals, tools, seeds, etc., and 900 drachmas for support during the first year.

To the refugees who are not farmers, but who have a trade, land will be given for building a house or shop, with 1,100 or 1,200 drachmas for putting up the building and getting started. To each community thus established will be granted a common pasturage for cattle, besides land for the construction of churches, schools, blacksmith shop, cemetery, market, park, etc.

These advances to the refugees in money and lands constitute a loan, repayable to the agricultural bank of Thessaly in 30 annual payments, due each 1st of October. In case of failure to meet payment the interest is increased to 6 per cent. The agricultural bank of Thessaly will be under the control of the minister of finance. It is hoped that the encouragement of these refugees will lead to the repeopling by an agricultural population of lands now unused, and will help to fill the void caused by the heavy emigration to the United States.

AUSTRIA.

STRICT SANITARY METHODS USED FOR PRODUCING SUPERIOR MILK.

Consul John S. Twells, of Carlsbad, sends the following brief description of "ideal milk" production at that Austrian health resort:

Dr. Sigmund Hirsch, a medical member of the corporation of Carlsbad, recently reported at a meeting of the corporation in relation to visiting one of the Bohemian milk farms, the milk from which is to be introduced into Carlsbad, and admits of no objection from a sanitary point of view. The doctor is quite sure that Carlsbad is the only medical place in Europe where this milk is at present introduced. The proprietor of the farm, who is an Austrian millionaire, imported valuable cows from Switzerland. These animals were vaccinated with tuberculine. If it does not take, the cows remain in the stables for milking purposes; but if it does take, then their milk is not used. The milk is under permanent control of a medical inspector for the district. In order to have complete sanitary conditions a special water supply has been conducted into that tower. The animals are covered in such a manner so as to prevent any dust or foreign substance from getting into the milk after it is taken from the cows.

A liter of milk, equal to 1.05668 quarts American measure, will cost at Carlsbad 60 heller, or 12 cents, while the ordinary market price of milk is only 24 heller, or 5 cents. This interesting report from Doctor Hirsch demonstrated what the medical profession in Austria consider to be what may be called "ideal milk" without possible objection from a sanitary standpoint.

SWITZERLAND.

AMERICAN SILAGE METHODS INTRODUCED AT GENEVA.

In describing the introduction of American silos into Switzerland, Consul F. B. Keene writes from Geneva:

Just outside of Geneva there is a small but model American farm, the property of an American gentleman who has long resided in this city [name on file at the Bureau of Manufactures]. To a model dairy and equally up-to-date quarters for fowls and swine, the owner last autumn added two 75-ton American silos. While 12 acres of fine American corn were being ground and packed into these, farmers came in from the country round about to see what was to them a curiosity and a revelation. There were as many as 15 or 20 in a day. These silos were, as far as I know, the first to be set up in Switzerland. During the past winter they have fed 30 head of fine cattle. The practical illustration of wintering 30 head of stock on the 12-acre crop of corn has resulted in inquiries for seed corn and in orders for 3 silos by farmers who came, saw, and were convinced.

Each of these 3 silos will be a new advertisement for the system, which is bound to spread. The American model farmer in question grinds his ensilage by electric power. It may be that, in a country abounding in water power, the spread of silos will create a demand for electric motors, in which our American makers may find it profitable to seek their share.

SPAIN.

CROPS RUINED—HEAVY LOSSES TO CATTLE FARMERS.

Consul L. J. Rosenberg writes from Seville that owing to the prolonged and afflicting dryness which has prevailed in that part of Spain this season the outlook for the agricultural interests is rather gloomy. He adds:

The benefits obtained from the little rain of the latter part of April have been very limited, and the calm weather which followed has blasted all hopes of improving the condition of the fields and crops; and even if the rain should come again it will be too late to benefit the majority of the agricultural products. There can certainly be no doubt that the crops will be practically lost, and thus cause heavy importations of cereal products, particularly of barley, from other countries.

This dryness means also heavy losses to the cattle farmers. Owing to the scarcity of pasture the farmers are obliged to feed the cattle on barn food, and stabling, when the herd is of some importance, is always ruinous in this region. It is sure to be so this year, because the expenses of the daily rations for the cattle will not find compensation afterwards in the market prices.

[The foregoing reports suggest openings for the introduction of irrigating and well-boring apparatus of various kinds.—B. of M.]

KOREA.

A BRANCH FOR THE EXPERIMENTAL CULTIVATION OF COTTON.

According to the British consul-general at Seoul, a model farm has been established at Suwen, Korea, for the encouragement of agricultural enterprise. Experiments are being made in the cultivation of rice, barley, soja beans, and other staples; also of clover for forage and mulberries for silkworm raising. Live stock is also being raised, and the produce distributed free or at low prices in order to encourage agricultural industry among the natives. Experiments are also being made with regard to irrigation, and instruction on this point given to farmers. A branch has been established at Mokpo for the experimental cultivation of American upland cotton, the results of which are eagerly awaited, as it is hoped that the cultivation of cotton may be made one of the staple agricultural industries of Korea. It is estimated that the area of land in Korea which can profitably be put under cotton is capable of producing about 130,000,000 pounds of ginned cotton annually.

GRAIN TRADE.

ENGLAND.

LEGAL VERDICT AGAINST SHIPPERS OF DAMAGED AMERICAN CORN.

Consul Walter C. Hamm, at Hull, sends further evidence of the carelessness shown in the loading and transporting of corn from the United States to Hull in a report of a successful action to recover damages for injury to a cargo of corn, decided May 16 in the British admiralty court at Hull. He writes:

The suit was brought by an importer of Hull, the defendants being the owners of the steamer Stagpool, which brought the corn from New Orleans. It transpired that it was the largest cargo of corn ever brought to Hull. It was stated that the cargo consisted of 22,000 quarters, valued at approximately \$150,000. Bales of cotton constituted the remainder of the cargo. The corn was shipped at New Orleans in good condition, but on arrival at Hull part of it was found to be damaged. In one hold (No. 4) there were about 7,000 quarters, and plaintiffs claimed that 66 quarters of this were damaged by sea water coming through the porthole or trunk door and that 164 quarters were damaged in that hold by fresh water and heat from the engines, owing to there being no protection from the heat and owing, it was further said, to a door being off during some part of the voyage. In another hold (No. 5) there were about 4,500 quarters of corn, and of that, it was alleged, 249 quarters were damaged by sea water coming through the trunk door or porthole. Under the bill of lading the carrier was exempted from loss or damage occasioned by perils of the sea. On arrival at Hull it was found that the trunk door of No. 5 hold was buckled or twisted.

COURT AWARDS DAMAGES.

The judge said that he had no doubt that the evidence given by the plaintiffs was correct, and that the rubber did not fit properly to the door of hold No. 5. He had no doubt that the damage in that hold was all substantially due to the sea getting in through this defective door on the voyage. The bill of lading afforded no answer, because, in his opinion, the door was already buckled when the ship started on its voyage. He therefore found, so far as that hold was concerned, that defendants were liable to pay for 240 quarters. In regard to hold No. 4, he had no doubt that some of the corn was damaged by fresh water, and he could not accept the evidence given for the defendants to the effect that the fresh-water damage was due to moisture given out by the cargo itself in heating. He therefore held them liable for the damage done.

With regard to the other damage in this hold, he found that the corn was damaged by the heat from the engines, and that the corn was improperly and negligently stowed close to the engine bulkhead, without any protection. Apart from the claim on the quantity alleged to be sea damaged, he found that defendants were liable to pay on 100 quarters. With regard to the sea damage, he found it proved that from some period of the voyage the door was not screwed down sufficiently tight in all parts, and he inferred that that was the case when the voyage was commenced. He thought upon this statement that either there was unseaworthiness or negligence for which defendants were liable, because the bill of lading did not protect them against such negligence. He estimated the quantity thus damaged at 60 quarters. On the whole, then, he found defendants liable to pay on 400 quarters of the damaged corn.

Such examples as this of damage and loss from careless loading and carrying ought to impress American exporters and shippers with the need of greater vigilance. Every damaged cargo of corn that arrives here injures not only the owners of that cargo but the reputation of all American corn.

SPAIN.

THE RUSSIAN GRAIN PREFERRED BY SPANISH MILLERS.

Consul-General Benjamin H. Ridgely, of Barcelona, writes as follows concerning wheat consumption in Spain and why the Spanish millers prefer the Russian to the American product:

Although Spain is an agricultural country, her wheat fields are unequal to supplying the needs of the people, and necessarily a large quantity of foreign wheat is imported annually. The amount which Spain requires to buy abroad depends entirely on the yield of the home crops. An abundant harvest will bring down the imports of wheat to 100,000 tons, while, on the other hand, no less than 1,000,000 tons have in some years been required to make good the deficiency of the native supply. The average annual imports for a period of ten years would probably not exceed 300,000 tons. The largest and most important flour mills in Spain are in Barcelona, where most of the foreign wheat is discharged. The facilities for unloading vessels bringing grain have been considerably increased of late years, and in case of need a thousand tons can be placed on the quay within twenty-four hours. Steamers drawing 22 feet can be moored alongside with ease.

American wheat, generally speaking, is not particularly adapted to the requirements of this country, lacking, it is asserted, the strength of the Russian wheat, which Spanish millers buy in such large quantities for mixing with their native supplies and for which purpose the Russian grain is almost a necessity. Nor is American wheat considered quite white enough nor sufficiently high yielding to form a substitute for the wheat of Castile when needed. Notwithstanding this, several shipments were made from Duluth to southern Spanish ports during the past year, and doubtless more American wheat would have found a market in Spain had not our crops been below the average and the prices relatively high as compared with those ruling in other countries.

After a succession of poor crops, Spain last year had an almost record harvest, and if weather conditions continue favorable for the seed now planted, it is more than probable that imports of foreign wheat will be extremely small during 1907, more especially owing to the recent increase in the duty from 8 to 10.50 gold pesetas per 100 kilos (\$1.54 to \$2.03 per 220.46 pounds).

ASIATIC TURKEY.

PRIMITIVE FLOUR MILLS GIVING WAY TO MODERN METHODS.

Consul E. L. Harris writes from Smyrna that Asiatic Turkey is a good field for the sale of flour-milling machinery, for the reason that the flour consumed therein is almost entirely of native production. He says further:

There are hundreds of small flour mills in the interior of this district, with primitive machinery set in motion by still more primitive water wheels, all of which is being gradually replaced by improved appliances. In the larger centers, up-to-date flour mills are found, which turn out the very best product. In Smyrna there are 14 large

flour mills fitted with modern machinery, one of them having as motive power a suction gas engine of 130 horsepower. The machinery for these mills came principally from Switzerland and England. Germany and France have recently entered the field with good success, as the mill with a suction gas plant is fitted entirely with French machinery and another one is being remodeled by a German firm.

American manufacturers of flour-milling machinery should make an effort to secure a foothold here. This could be done only by sending out a salesman thoroughly familiar with everything entering into the composition of a modern flour mill and able to discuss their operation. An energetic representative should then be appointed in this city to be on the lookout for any business that may come up and report to the manufacturers in case detailed specifications are wanted.

In one of the best-equipped flour mills in the interior I have seen a semolina machine from Moline, Illinois. The miller spoke highly of the machine, but did not know that it came from the United States, which showed me to what extent American manufacturers were neglecting opportunities here.

CHINA.

LARGE CONTRACTS PLACED FOR AUSTRALIAN FLOUR.

Vice-Consul-General S. J. Fuller, of Hongkong, reports that the American flour merchants in that city understand that unusually large contracts have been placed for Australian flour to be delivered in Hongkong. These contracts are understood to total more flour than has ever before been contracted for in Australia for the Hongkong market, and estimates place the total amount at from 300,000 to 500,000 bags, while it is stated that 80,000 bags is the largest that has been under contract at any one time in the past. The reason given for the ability of the Australian millers to secure this business is that the American mills are now and have been for some time unable to make deliveries.

FRUITS AND NUTS.

ASIATIC TURKEY.

HAZELNUT CULTURE AND CROP RETURNS.

Consul Milo A. Jewett, writing from Trebizond, furnishes the following description of filbert production in Asiatic Turkey:

The hazelnuts (filberts) of this part of Asia Minor, especially those of the Kerassund region, are considered as fine as any in the world, and form one of the most important articles of export of this consular district. The crop last year was below the average in quantity, but of good quality. There were exported from this province in 1906, 80,000 hundredweight (of 112 pounds each) of nuts in the shell and 85,000 hundredweight shelled. There were sent direct to the United States 6,340 hundredweight, practically all shelled, valued at \$63,834. During the year the price of shelled filberts rose gradually from \$8.70 to \$14.50 per hundredweight. They are now held at \$16 to \$16.80 for the better grade of shelled nuts. The prospects for the crop this year are good, but until the crop is almost ready for harvesting, in July, there is always considerable uncertainty about the result.

Along the south shore of the Black Sea the hazel tree (*Corylus avellana*) flourishes and furnishes one of the chief sources of revenue of the province of Trebizond. The young trees begin to bear at the end of the fourth or fifth year and are at their best when 7 or 8 years old. When 15 or 20 years old the trees cease to bear and the orchard must be renewed. It is estimated that 400,000 acres of land on the hillsides along this coast and extending 10 to 15 miles inland are devoted to filbert culture. The nuts are gathered in July and August. They are dried and sorted to some extent before being brought to the market. At Kerassund a municipal regulation imposing a fine on those who offer wet or rotten nuts for sale in the market has done much to improve the reputation of the Kerassund nuts.

VARIETIES AND PRICES—SHELLING AND FUMIGATION.

There are three varieties of filberts, the round, the pointed, and the almond. The round nuts are most abundant and furnish the basis for prices. The so-called "almond" filberts are few, being especially large, perfect nuts, and sell for 30 per cent more than the round. They are shipped in the shell to Marseille, Odessa, Trieste, and Hamburg. The "pointed" nuts are shipped in the shell. They are used for dessert, keep better, and cost 10 per cent more than the round. They are shipped to Alexandria, Odessa, and to other European points. The "round" nuts, which constitute about 70 per cent of the whole product, are mostly exported shelled. One hundred pounds of nuts in the shell give from 43 to 50 pounds of kernels.

Shelling effects a saving of about 50 per cent on the freight. It also furnishes employment for several thousand persons, mostly women and girls, who receive about 1 cent for every 3 pounds of kernels. A woman can shell from 60 to 120 pounds per day. The nuts are first sorted into three sizes by means of revolving screens. They are then run through a stone mill, one size at a time, the stones being adjusted just far enough apart to crack but not to crush the nuts. The kernels are then picked out from the shell and generally the different sizes are mixed together again. The shells are used here for fuel and a small quantity is exported to Europe, where they are said to be used in adulterating spices.

Many of the nuts are bleached by fumigation before they are exported. It improves the color, but injures the flavor, and the nuts are said not to keep as well. Fumigation is effected by putting the nuts in a large box having a double bottom of perforated sheet iron and burning sulphur in the lower compartment. The nuts are exposed to the sulphur fumes over night. This artificial bleaching or "coloring," as it is commonly called here, is of no utility. It adds unnecessarily to the cost, injures the flavor of the nuts, and may make them less wholesome.

FRANCE.

PEANUT TRAFFIC AND PRICES IN MARSEILLE—EDIBLE OILS.

In regard to the peanut trade at Marseille, Consul-General Robert P. Skinner furnishes the following report on the market supply in that French port, with remarks on peanut oil:

It has never proved to be commercially possible to import American peanuts at Marseille, usually on account of their high price, and at present because of short supplies. In fact, Marseille is now export-

ing choice hand-picked nuts to the United States, and has done the same thing in previous years. The African west coast nuts have proved somewhat of a disappointment as to quality this year, owing to a succession of heavy rains by which they were soaked after having been gathered for shipment.

The imports of peanuts at Marseille during 1906 amounted to 189,835 tons, against 152,680 tons in 1905 and 181,020 tons in 1904. Prices at this time per 220 pounds are as follows: Shelled, Bombay, delivered terms, \$6.37; Coromandel, cost and freight, \$6.08; Mozambique, delivered terms, \$7.91. Unshelled, Ruffisque, Cayor, \$5.31; Gambia, \$5.50; and Bas de Cote, \$5.01.

These nuts are all utilized by the Marseille oil manufacturers, of whom there are a great many. The higher grades of peanut oil are very much esteemed, as may be understood by the comparison of prices which the various grades of edible oil command in this market per 220 pounds: Cotton oil, American winter edible, \$15.44; choice white edible, \$15.82; peanut oil, edible qualities, \$15.44 to \$18.33; sesame oil, white Bombay, \$16.40.

American firms handling the edible peanut will be interested to learn that an effort is being made to introduce what is called the Acajou or Mahogany nut as a substitute for both the almond and peanut in the confectionery trade. This nut is exported from India to Marseille and handled commercially from this city. The kernel is crescent shaped and almost as heavy as an ordinary Brazil nut kernel. It is sweet in flavor and possesses, apparently, all the good qualities desirable.

[The consul-general names the leading Marseille firms importing and exporting nuts of all grades; also the manufacturers of peanut oil in that city, all of the foregoing being listed at the Bureau of Manufactures.]

GERMANY.

EXCELLENT MARKET FOR FINE AMERICAN APPLES.

Consul J. I. Brittain, reporting from Kehl, says that if American apple growers were seriously to study the German market they could undoubtedly largely increase their sales, especially of the finer and more attractive qualities of table fruit. He furnishes the following market pointers:

The question has been asked whether the cheapness of oranges would not interfere with the sale of any other table fruit commanding a higher price than oranges. In answer to the question I would say no, especially where there is a market for the finer grades of apples. Persons whose circumstances permit them to purchase beautiful table apples do not purchase cheap oranges for table use, and the fine grades of oranges always command good prices, selling for 5 to 7 cents each. The inferior grade of oranges in May and June sell as low as 15 cents per dozen.

Fine table apples for the German market should be selected from attractive varieties and good keepers. They should be wrapped in tissue paper, then packed in fine excelsior, in boxes made from strong, light lumber. These boxes should be about 24 inches long, and from 12 to 14 inches wide, and sufficiently high for one layer of apples.

Should two layers be placed in the same box, they should be separated by cheap cardboard and the second layer should be packed as the first.

While this sort of packing may require a little more time, yet the extra expense will be slight and the seller will be duly compensated by the increase in the price of the fruit. Apples coming from France, running from 2½ to 3 to the pound, packed as described, sell for 5, 6, and 7 cents each—apples that are inferior to ours in appearance and flavor. The size and beauty of our finest apples would doubtless command a much higher price. No continental apples equal ours in flavor or appearance. At present American apples of the common grades, packed in boxes or barrels, sell at 10 to 12 cents per pound.

If we wish to capture the foreign market, we must pay more attention to the manner of packing merchandise, especially perishable merchandise.

HOLLAND.

HIGH PRICES AND SMALL CROPS AFFECT AMERICAN FRUIT SALES.

In a report from Amsterdam, Consul F. D. Hill makes the following statements in regard to American fruit in the Netherlands:

The prices for evaporated and dried apples were rather high in 1906, so that the trade was not as important as in former years with moderate prices. The crop proved to be rather small, so that in the second half of last year prices went up and reached such a high level that the trade bought only small quantities. Some American houses which had sold uncovered could not or would not execute their contracts. Others executed only the half, so that several importers here suffered serious losses. The trustworthy American exporters who seem also to have sold bearish to European consumption markets had to cover their sales in the stipulated contract time, so that the demand was much greater than the offers, and a further rise was the consequence. Prices for evaporated apples rose very high.

Prunes were moderate in price. The rise in French prunes influenced the California products, so that exporters there increased their quotations also. The crop for the larger-sized fruits turned out smaller than anticipated. The difference between the small and large fruits was this season greater than usual. The crop of apricots was very small and prices high.

TEXTILES.

COTTON GOODS TRADE.

CHINA.

HOW TO INCREASE TRADE AT THE YANGTZE PORTS.

Consul Thornwell Haynes, of Nankin, supplies the following information concerning the cotton-goods trade of the Yangtze Valley of China:

No foreign goods of any description enter Yangtze ports direct, but come through Shanghai; and American merchants can only increase sales by establishing trustworthy connections there. Than this there is no better port through which to enter the great market of the Yangtze Valley, and the millions of this valley are eager for and able to buy foreign goods, but they will not seek the seller. They will patronize only those who come to them with superior goods at better prices; those who talk with them, consider their feelings, appreciate their good qualities, and adapt themselves to their customs. The Japanese do so and are reaping an abundant reward; and until American merchants understand and act upon this they will continue only to scratch the surface. Some day, probably, China's 400,000,000 will wear foreign clothes. That is a long time off, but it is never too soon for American merchants to establish themselves in rich and promising markets.

In a greater or less degree, the following statistics of the importation of cotton goods at Wuhu are applicable to the two other treaty ports in this consular district, Nankin and Chinkiang, and, in fact, to all other ports in the Yangtze Valley. The imports of American gray plain sheetings at Wuhu for the last four years have steadily declined, falling from 26,125 pieces in 1903 to 21,985 in 1904, to 880 in 1905, and to 200 in 1906. The falling off of English sheetings is almost as great, being 64,000 in 1903 and 3,000 and 2,880 in 1905 and 1906, respectively. No Indian sheetings entered in 1905 or 1906, whereas in 1903 there entered 2,230 pieces. This remarkably regular decrease is due principally to two causes: (1) Increased home production, and (2) shirtings replacing sheetings. The effect of the boycott has been very slight.

LOCAL FABRICS SUPPLANT IMPORTS.

Shanghai cotton mills now furnish much of the sheeting that has heretofore been imported, and the production of hand-woven sheetings is greatly increasing. Of gray shirtings, which are to a great extent replacing sheetings, 17,704 American pieces were entered in 1904, 59,090 in 1905, and 31,578 in 1906, while England, during the four years from 1903 to 1906, inclusive, entered 156,814, 108,616, 168,616, and 172,688 pieces, respectively. For the last four years the average of plain white sheetings entering has been about 90,000 pieces

annually. Within the last four years the imports of American drills have fallen from 29,980 to 11,355 pieces, while during the same period English drills have remained in the neighborhood of 5,000 pieces annually, with the exception of 1905, when 11,780 pieces were imported. Plain cotton prints and printed shirtings are entered in the customs irrespective of nationality, and have gradually declined from 21,739 pieces in 1903 to 8,515 in 1906.

The hereditary predilection of the Chinese for the finer grades of goods, whether genuine or imitation, is shown by the increased importation of velvets and velveteens, which rose from 39,971 yards in 1904 to 65,510 in 1905 and to 115,810 yards last year. In most instances the Chinese prefer an imitation silk or satin to cheaper but genuine goods. In Wuhu, Nankin, Chinkiang, and other cities of this district sateens are largely supplanting black satins and velveteens the genuine velvets. The reason for this is that Chinese colors are not always lasting, while the foreign imitations look almost as well, cost considerably less, and retain their luster and color longer.

Indian cotton yarns entering at Wuhu amounted in 1903 to 4,607,085 pounds, in 1904 to 2,466,146, in 1905 to 1,695,717, and in 1906 to 4,204,182. Japanese cotton yarn averaged nearly a million and a half pounds annually for the last four years. All this yarn keeps the numerous hand looms busy. At Nankin the importation of English cotton yarns has risen from 7,209 pounds in 1903 to 33,642 pounds in 1906. Indian cotton yarns during the same period rose from 461,376 to 490,746, and Japanese from 76,229 to 127,760 pounds. This increased importation of yarns accounts to a great extent for the diminution of the imports of foreign sheetings.

PRICES IN TIENTSIN MARKET.

RECENT QUOTATIONS FOR PIECE GOODS AND YARN.

The following are recent quotations of native market prices for cotton yarn and piece goods, as published in the native Chinese papers in Tientsin and furnished by Consul-General J. W. Ragsdale, the translation of the brands being literal:

	Taela.*
Sheetings, "Rat" brand, American, 36 inches wide by 40 yards in length, per piece.....	4.45
Sheetings, "Cat" brand, American, 36 inches wide by 40 yards in length, per piece.....	3.95
Sheetings, "Sitting Tiger" and "Globe" brands, size as above, American, per piece.....	3.75
Shirtings, gray, "Heaven Girl" brand, 38 inches by 38½ yards long American, per piece.....	2.85
Shirtings, gray, "Seven Sons" brand, size as above, English, per piece....	2.78
Shirtings, white, "Eighteen Sons" brand, size as above, English, per piece.....	4.35
Shirtings, white, "Round Dragon" brand, size as above, English, per piece.....	4.85
Shirtings, white, "Twelve Beauties" brand, size as above, English, per piece.....	4.30
Shirtings, white, American or English, 43 yards.....	5.10
T-cloth, English, turkey red, piece 32 inches by 24 yards.....	3.43
T-cloth, English, turkey red, piece 32 inches by 24 yards.....	2.93
T-cloth, English, turkey red, piece 32 inches by 24 yards.....	2.43

* The Tientsin tael, according to United States Treasury rate for the current quarter, is worth 79.4 cents.

	Tael.
Lawn, white, English, "Fairies," piece 30 inches by 24 yards.....	1. 45
Lawn, white, English, "Nine Dragon Girls," size above.....	1. 55
Drills, American or English, 40 yards.....	4. 10
Cotton yarn, "Blue Fish" brand, Japanese, per picul.....	87. 50
Cotton yarn, "Double Happiness," Japanese, per picul.....	87. 50
Cotton yarn, "Ox-plows in Field," Indian, per picul.....	69. 00
Cotton twist, 20 yards.....	105. 00
Cotton twist, 32 yards.....	141. 00

OMAN.

MASKAT AS A DEPOT FOR THE ENLARGEMENT OF TRADE.

Concerning the present trade in American sheetings in the Arabian sultanate of Oman and the opportunity which offers for the enlargement of the trade in these, as well as in all other cotton goods, Consul William Coffin, of Maskat, writes as follows:

Cotton goods stand first in the schedule of American imports into Maskat. During the calendar year 1906, according to the custom-house statistics, the importation of American sheetings amounted to \$75,212, in a total importation of piece goods of all kinds of \$265,220.

This is an excellent showing, in view of the fact that American manufacturers make practically no efforts to get business in this market, and that no American sheetings reach Maskat direct, the entire supply being purchased in Aden from an American house at that place which carries a stock of cotton goods. One native merchant in Maskat, who deals direct with the American agent in Aden, does 75 per cent of the business here, and the remaining 25 per cent is purchased by other local merchants from brokers in Aden, who in turn buy from the American house there.

HOW SALES ARE MADE.

These sheetings have an excellent reputation in Maskat. Manufacturers in India formerly exported a grade of sheetings to Maskat which they called Indian Americans, but these, although they were sold at a lower price, could not stand up against the competition of the genuine article, and are now seldom seen in this market. Local merchants here have told me that there is no profit in American sheetings; that they are invariably retailed at or below cost price. They explain this by saying that an Arab customer's first request is for American sheetings, and in order to keep his trade in cotton prints, perfumery, saffron, and all the other incidentals that he comes to town to buy they carry the sheetings as leaders and sell them at cost and often below it. This, if true, is very flattering to the reputation of American sheetings, but is not particularly conducive to increased sales.

There are apparently only two qualities of American sheetings imported. The first, in which most of the business is done, is known as Massachusetts brown sheeting, and weighs 9 pounds to the piece. A bale of 25 pieces contains 750 yards, and the price per bale, f. o. b. Aden, is at present \$50.60. These bales sell in Maskat for \$61.31. Another grade, slightly heavier, but not so good in quality, costs in Aden \$47.36. The duty on these goods is 5 per cent ad valorem.

^a Picul, 133½ pounds.

They are used principally to make the long shirts which every man wears, and are often dyed before being made up. They are also used as sheets and in some cases to cover the ceilings and walls of rooms.

Little effort is made to market American sheetings widely throughout Oman. The sales are mostly to small dealers in Maskat, although a few bales are sent to the district of El Batina. Undoubtedly much of the importation reaches the interior of Oman; but it is impossible to trace the volume of sales or their destinations.

AN AMERICAN COTTON DEPOT NEEDED.

Taking as correct the estimate of 1,500,000 for the population of Oman, it would seem that there is room for at least double the present trade in American sheetings, even though some parts of Oman are not accessible. If a depot for American sheetings and other cotton goods were established in Maskat and the surrounding territory worked the way it is worked from Aden, there would be a very large increase of business. The development of the trade in Oman could be undertaken through the towns of Dhofar, Sur, Maskat and Matra, Sibb and Sohar, from all of which start caravan routes to the interior. In addition to this territory, the entire western coast of the Persian Gulf could be covered. This includes the towns of Sharjah, Debai, Abu Thubee, Bahrein Islands, El Katif, and Koweit, all of which afford markets only waiting to be canvassed. The Persian ports of Charbah, Jask, Bunder Abbas, Linjah, and Bushire are close at hand, with frequent steamship communication and unquestionable opportunities for trade in cotton goods.

In every one of these towns a substantial business in American cotton goods can be worked up. The business can be got by establishing a depot in this territory, and Maskat is probably the best center to work from. If American manufacturers want the business, they have only to come after it. It is here waiting for them.

BELGIUM.

DIFFICULTY OF YARN SUPPLY CAUSES LOOM STOPPAGE.

Vice-Consul J. A. Van Hee, reporting from Ghent, says that the weaving industries of that Belgian district are now going through a crisis such as has never before been experienced. He ascribes the causes as follows:

The principal reason for this critical situation is the high customs duty levied upon cotton yarns and threads imported into Belgium. Courtrai, Roulers, Renaix, and numerous other towns, which represent the weaving center of this district, as well as of Belgium, are seriously threatened with an alarming future if the present duty is maintained.

The situation is thus explained: The raw cotton imported into Belgium free of duty is spun in the spinning mills of Ghent, Zele, Tubize, and other localities and then sold to the weavers. The price at which these yarns and threads are offered to the weaver are increased in each case, according to a common understanding among spinners, by the duty levied thereupon. It is this increase that has proved disastrous to the weaver and which has completely paralyzed all efforts made to develop this industry, as the yarns and threads spun

in Belgium cost the weaver the same price as yarns and threads imported from foreign countries.

The spinners, forming a species of trust, have now considerably aggravated the already existing precarious situation by the suspension of current contracts with weavers. They are now selling to and furnishing foreign markets with the greater part of their production, and are leaving the Belgian weaver without yarns, thus allowing the latter to work only from three to four days per week. Such has already been the case in the mills located in the Courtrai and Renaix centers during the month of April.

The suppression of the duty on cotton yarns and threads imported into Belgium would permit weavers to supply themselves in foreign countries, if the Belgian spinners persisted in exporting the greater part of their production. On the other hand, it would oblige them to decrease their prices and offer their yarns at prices competing with the imported article. It should be noted that the minimum duty on cotton yarns imported into Belgium is 15 centimes per kilo (\$0.028 per 2.2 pounds), and that several of the more important mills use annually approximately 500,000 kilos (500 tons) of yarns.

ASIATIC TURKEY.

SALE OF AMERICAN COTTON GOODS STEADILY INCREASING.

Advices from Consul Evan E. Young, at Harput, state that the measure of success which has attended the efforts of his consulate to further the introduction of American cotton goods in that district of Turkey in Asia warrants continued efforts, concerning which he writes:

As an instance of what can be accomplished along this line I would report that I have recently received a sample of cotton sheetings from a firm in America. Prices were quoted c. i. f. Samsoun. The cost was readily computed in the local currency, and the sample was then brought to the attention of one of the local importers of such goods. An immediate trial order was received, and the importer assures me that if the shipment is according to the sample he will be in a position to handle the sheetings on a large scale. The sale of American cotton goods is steadily increasing in this country, but competition is keen and any relaxation on our part in our efforts to secure this market will result to the instant advantage of our competitors.

COTTON GROWING.

EGYPT.

RAISING THE ASSOUAN DAM WILL PROVIDE GREAT CROP EXPANSION.

Consul-General L. M. Iddings reports from Cairo that the contract for raising the Assouan dam in the Nile of Upper Egypt has recently been awarded to the firm who built the dam. The structure will be raised 23 feet and will cost \$7,500,000. Concerning this project the Egyptian Gazette says:

The result of the work will have an important bearing on the cotton crop. The area under cotton in 1906 is given as 1,506,290 acres. Taking the present cotton crop at 6,750,000 kantars [a kantar equals 100 pounds], the average yield

per acre works out to $4\frac{1}{2}$ kantars. The area under cotton in Lower Egypt alone is 1,260,107 acres, this representing about 40 per cent of the total cultivated area in that division of the country. The whole of this area, being under perennial irrigation, is cotton bearing. These figures, therefore, indicate that on an average cotton is grown on the same land two years out of five. The area under cotton in Upper Egypt is given as 246,183 acres. This represents only a small proportion of the cultivated area, less than half the latter being under perennial irrigation. Moreover, the climatic conditions south of Assiout are unfavorable for growing cotton. In order to ascertain to what extent the cotton-bearing area is susceptible of expansion, we assume that the whole of the basin lands in the northern half of Upper Egypt will be brought under perennial irrigation, and that the uncultivated portions in both Upper and Lower Egypt will ultimately be reclaimed. The cotton-bearing area will then extend over some 5,600,000 acres (being the total of 6,387,100 acres given above, less about 800,000 acres south of Assiout). On the basis of a 40 per cent acreage per annum and a yield of $4\frac{1}{2}$ kantars per acre this area might produce an annual cotton crop of about 10,000,000 kantars. It is to be observed that a considerable portion of the land at present under cultivation is being improved, which will without doubt contribute to raise the average yield per acre. On the other side must be set the consideration that last year's crop was so favored by a good Nile and satisfactory climatic conditions as to raise the average yield above the level of recent years. Of the total of 10,000,000 kantars, no more than 7,000,000 kantars would consist of the Mitafn, Abassi, and Yoannovitch varieties, for which the Delta is famous, the remaining 3,000,000 kantars representing the lower-grade cotton produced in Upper Egypt. Lord Cromer, in discussing these figures, remarks in his report for 1906:

"It will, of course, be understood that this crop of 10,000,000 kantars can not be produced until both the supply of water has been largely increased, either by raising the Assouan dam or by some other means, and until reclamation works on a large scale have been executed in Lower Egypt. Sir William Garstin, probably the highest authority on the subject, says: 'I do not think that 10,000,000 kantars as an eventual yield for the Egyptian cotton crop is at all an impossible figure, but it will take many years to arrive at—probably ten or fifteen.'"

The Egyptian cotton crop might conceivably receive a still greater extension in course of time from two further sources, namely, the reclamation of the lakes in Lower Egypt and the development of the oases [reclamation of Lower Egypt is the Khedive's especial project]. The former, if ever carried out, would add some 800,000 acres to the cultivated area and a further 1,500,000 kantars to the cotton crop. The latter is at present too problematical to permit of any estimate being made of the possible results.

JAMAICA.

LARGE AREA TO BE UTILIZED IN THE KINGSTON DISTRICT.

Consul F. Van Dyne, of Kingston, reports as follows concerning the cultivation of cotton in Jamaica:

Referring to the revival of the cotton industry in the West Indies, considerable interest is still being shown in extending its area, and experiments made in the Liguanea plains for the past two years with Sea Island seed have proved that the soil there is eminently suited to the growth of cotton. The plains in question extend from the foot of the hills at the north of Kingston down to the limits of the city, and have an area of some 27 square miles, which can all be utilized for cotton growing. The prospects for the successful growing of cotton in this locality, combined with the fact that what has so far been produced has brought the highest prices ever paid for this variety in the West Indies, has encouraged a prominent British capitalist to investigate the proposition, and it is probable that a scheme will shortly be inaugurated to convert this plain or the major portion of it into a great cotton plantation. [The consul forwards a Kingston newspaper article on the subject which may be seen at the Bureau of Manufactures.]

SPAIN.

AN EXPERIMENTAL CROP DID NOT PROVE PROFITABLE.

Consul-General Benjamin H. Ridgely, of Barcelona, writes as follows concerning cotton growing in Spain:

Much has been written of late on the subject of growing cotton in Spain, and although it has been proved perfectly feasible it is impossible to produce it at a price to render it marketable. Not long ago extensive trials were made at La Vega de Motril, near Malaga. The cotton was baled and shipped for sale to Liverpool, and though it was there highly classified, the ultimate result was a heavy loss to the planter. In districts where conditions would be favorable to cotton growing the owners of the land find that wheat and fruit crops are more profitable, so that Barcelona and, indeed, all the other cotton-manufacturing cities of Spain must continue to be dependent on the United States for most of their supplies of raw cotton.

There is always complaint here of the bad packing of American cotton and of short weights, but the same complaints are being made everywhere, and American exporters do not seem to heed them in the least.

WEST INDIES.

LARGE SHIPMENTS OF COTTON SENT TO GREAT BRITAIN.

Consul J. E. Haven reports that the shipments of cotton from the British West Indies group of islands—St. Christopher, Nevis, and Anguilla—during the first three months of 1907 amounted to 990 bales of an aggregate weight of 270,168 pounds, of which the United Kingdom took all but 2,210 pounds, which went to the United States. There were also shipped from these islands during the same period 4,674 tons of sugar, 178 puncheons of molasses, and 131 puncheons of rum.

TROPICAL FIBERS.

BRITISH INDIA.

VALUE OF EXPORTS OF JUTE AND JUTE PRODUCTS.

The following report, covering the exports of jute and jute manufactures from British India and the wages and conditions of the jute-mill operatives, is furnished by Consul-General William H. Michael, of Calcutta:

Practically all the jute exported from India passes through the port of Calcutta. During the calendar year 1906 the value of jute and jute manufactures declared at this consulate-general for export to the United States was \$30,709,426, viz: Gunny bags, \$2,040,234; gunny cloth, \$19,881,707; jute (raw), \$5,715,920; and jute butts and rejections, \$3,071,565.

The Commercial Intelligence Department, in its returns showing the sea-borne trade of British India for the year 1906, gives the exports from Calcutta to the United States as follows: Gunny bags,

13,079,600, valued at \$719,330; gunny cloth, 492,785,420 yards, valued at \$17,328,930; raw jute, 248,406,256 pounds, valued at \$9,390,005; total, \$27,438,265, or \$3,271,161 less than the figures recorded in the consulate-general, which are based on the invoices covering all jute and jute manufactures shipped from Calcutta to the United States, and must be accepted as correct.

EXPORTS BY COUNTRIES.

According to official returns, the total exports of jute and jute products from British India to the several countries were as follows, in 1906:

Country.	Raw jute.		Gunny bags.		Gunny cloth.	
	Cwt.	Value.	Number.	Value.	Yards.	Value.
Africa:						
Cape Colony			3,786,260	\$514,180		
East Africa			2,193,185	419,820		
Mauritius			3,501,922	318,905		
Natal			3,791,680	353,650		
Argentina					96,084,600	\$4,179,200
Australasia			43,594,089	5,531,215	13,021,250	620,130
Austria-Hungary	864,743	\$4,546,565				
Belgium			3,330,250	294,556		
Chile			21,705,600	1,661,275		
China			32,070,478	1,831,665	24,657,172	954,185
Cochin China			5,173,700	421,345		
Egypt			13,129,500	1,670,980		
France	1,777,636	10,549,365				
Germany	3,032,378	16,145,905	4,588,500	418,735		
Italy	632,710	3,400,565				
Java			2,121,022	241,215		
Peru			3,535,700	400,880		
Russia	24,074	120,580				
Siam			3,327,300	315,720		
Spain	431,413	2,481,415				
Straits Settlements			21,800,924	1,956,280		
Turkey in Asia			4,511,080	502,740		
Turkey in Europe			2,631,700	300,285		
United Kingdom	6,662,576	35,227,370	32,193,985	2,887,915	48,305,000	2,033,830
United States	2,217,913	9,390,005	13,079,600	714,330	492,785,420	17,328,930
Uruguay					3,530,000	153,210
West Indies			12,467,601	1,622,025		
All other countries	175,415	929,325	14,109,216	1,120,670	17,084,870	725,520
Total	15,808,858	82,791,065	246,593,282	23,398,335	695,468,312	25,994,955

JUTE PRODUCTION AND MANUFACTURE.

The normal area of jute cultivation in Bengal embraces 2,470,000 acres, which yield on an average three bales of 400 pounds each to the acre, or 7,410,000 bales. Cooch Behar, Assam, and Nepal produce 90,000 bales, making the total production in east and west Bengal 7,500,000 bales. The looms at work in Bengal and their increase since 1877 were as follows: 1877, 4,163; 1895, 9,841; 1901, 15,336; 1904, 19,901; 1905, 21,318; 1906, 23,884. Of the last, 11,119 were sacking looms and 12,765 hessian looms. There are probably 125,000 persons employed in and about the mills. With the labor employed the average output per week for each loom amounts to about 14,000 pounds of goods. In the campaign for the year, fifty weeks, the production being $31\frac{1}{4}$ tons per loom per year, or a total of 750,000 tons, means a consumption of 3,750,000 bales.

I visited the modern Kinnison mill, which has a capital of \$1,000,000 and the latest machinery made in England. It has 650 looms and produces 18,000 tons of bags and hessian cloth in fifty weeks. This mill employs 4,000 men, women, and children.

The wages paid to men in the mills range from \$2 to \$3 per month. women from \$1.50 to \$2, and boys and girls from \$1 to \$1.75. These people subsist principally on rice and vegetables made up in the form of curry, which is a peppery and sweetish mixture of rice and vegetables, with now and then chicken, duck, or goat meat.

They all chew betel nut constantly as a stimulant. They eat two meals a day as a rule, one before beginning work and one after the day's work is done. The men and boys wear breechclouts, or dhooties, and the women and girls saris, which consist of 40 yards of thin muslin wrapped in a peculiar way about the loins and shoulders.

PRIMITIVE MODE OF LIVING.

The people of a mill, or several mills if the mills are nearly located together, occupy a village, which is made up of huts made of mud, bricks, and palm leaves woven into sheets and tacked onto bamboo poles. All are thatched with a long tough grass used throughout India for covering huts and bungalows, and which makes a tight, cool, and durable roof. The floor is made of clay tamped down hard, which makes a very good floor. On this floor is spread in places matting made of bamboo grass. On this matting many of the natives throw down a cotton blanket, or possibly a thin mattress, for beds. Some have a rude bed made of four posts 16 inches high, with crosshead and side pieces, pinned together and then crisscrossed with bed cords. There may be a few rude benches, but little or no other furniture is to be seen in the huts. The natives eat on the floor, squatted around a pot or pan containing the food. The men and boys eat first and the women and girls afterwards, taking what is left. The mode of life is thoroughly primitive. No knives, spoons, or forks are used in eating, the fingers answering all purposes. Each Indian is ambitious to own a brass jug or pot, and these brasses are handed down as heirlooms and are held as almost sacred in possessions. They are kept bright by scouring them with mud and water. After a meal the brasses that have been used in any way are taken out in the street, where the women or men, as the case may be, squat on the ground and rub them with the dust and water.

WHAT THE UNITED STATES PAYS FOR JUTE.

It might be well to consider the fact that we are sending to India \$21,921,941 annually for bags and cloth that might be made at home. We are receiving articles that are made by the cheapest paid labor on earth, and which could be made by mill labor in the United States. We are buying \$8,787,485 worth of raw jute annually and manufacturing it into cloth. Why not buy as much raw jute as we need and manufacture it into cloth and bags? This would give additional employment to our own people and keep the profits at home.

It would be still better to encourage the growth of ramie on the lands going to waste in the Philippines, where that fiber can be successfully cultivated. Thus we would be absolutely independent in respect to bags for use in handling our flour, wheat, corn, oats, and other commodities. Since the process of cheaply degumming ramie has been discovered there seems to be no longer any excuse for holding back in the cultivation of ramie on an extensive scale.

[Eight illustrations accompanied Consul-General Michael's report, five showing the interior and exterior of the jute mills, one showing

the landing of jute from native boats, and the other two groups of the mill operatives. All are filed in the Bureau of Manufactures.]

YUCATAN.

CHARACTERISTICS OF FIBER PLANTS—LARGE SALES OF SISAL HEMP.

Consul E. H. Thompson, of Progreso, Mexico, furnishes some interesting information concerning the fiber plants of Yucatan. He says, in part:

Sisal grass or hemp, henequen, or simply sisal, are the various commercial terms applied to a fiber that is neither a grass nor a hemp. The name "sisal" was applied to it because it originally reached the outer world through the Yucatan port of that name.

The agave is one of the most characteristic plants of Mexico. One species produces pulque, the intoxicating drink of the country. Great fields of this plant are found upon the table-lands, and long pulque trains are run daily into Mexico City. The agave sisalensis (vara rigida), another species, furnishes a fiber capable of binding wheat. There are four known varieties of this plant growing wild in the forests of Yucatan—the chelm, cahum, pabci, and the citamci. There are also two varieties of the cultivated plant—the yaxci, or green fiber, and the sacci, or white fiber. The last named is the most cultivated and the one producing the sisal hemp of commerce. [Samples of the fiber and photographs showing the various operations of fiber handling in Yucatan are filed in the Bureau of Manufactures, where they may be examined by persons interested.]

CLEANING MECHANISMS—LAST YEAR'S CROP.

The fiber-cleaning machines in use in Yucatan in order of precedence by priority of invention consists of what is called the pacché, the tonkas, and raspador. The pacché is a triangular, sharp-edged piece of wood, with rounded ends as handles. A wood log with a flat face is made with a hole and a peg in the upper portion. One end of the leaf is firmly fixed in the flat surface by jamming it into the hole and pushing the plug in after it; then the pulp is scraped away, leaving the fiber hanging from the uncleaned half of the leaf. The leaf is then reversed, the clean fiber fixed into the hole, and the uncleaned portion made ready for the action of the cleaner. The tonkas is a flattened piece of hard wood about 18 inches long by 5 inches wide. At its upper end it is about 1 inch thick, and it dwindles until at end it becomes a thin, sharp edge, curving inward, so as to grip and scrape the pulp from the fiber. The bed board of the tonkas has a curve to correspond with the curve in the edge of the implement. The leaf is placed between the bedpiece and the tonkas, and while the tonkas is held firmly in one hand the other draws the leaf toward the body, this movement being repeated until one-half the leaf is clean. The same operation takes place on the second half of the leaf. The pacché is the implement most in use to-day among the natives of the interior of Yucatan, and with which one person can produce from 6 to 9 pounds of fiber daily.

The next step in the evolution of the fiber-cleaning machine is the raspador, which in principle is a wheel upon which are placed the edges of many pacchés. With the aid of this machine two men can

clean in one day more than 40 can with the tonkas and pacché. There are many other labor-saving devices, some of them proving very effective.

The total output of sisal hemp from Yucatan during the calendar year 1906 was 599,568 bales, weighing 214,283,267 pounds and having a value of \$13,448,108 United States currency, whereas the 211,415,320 pounds produced in 1905 brought \$14,440,079.

MEXICO.

MEXICAN ZAPUPE PLANT GIVES PROMISE OF COMMERCIAL VALUE.

Consul A. J. Lespinasse, of Tuxpam, Mexico, reports that considerable interest has manifested itself in the increased cultivation of the zapupe plant, and up to the present time fully 1,000,000 plants have been set out in that locality, concerning which he writes:

The present outlook is exceedingly favorable, and within two years 500,000 plants will be in full production, and the fiber will enter into active competition with other varieties produced here and in other sections of the world. The advantages of the fiber have been confirmed by practical tests, which demonstrate that it is well adapted to the manufacture of cordage, etc. European houses are watching the development of the fiber, and in two instances offers have been made by two such firms to absorb the entire production for a number of years whenever shipments become of sufficient importance, but as yet no definite agreement has been reached, as the zapupe planters wish to remain independent. [The consul sends a map indicating where the most important zapupe plantations are located, and a photograph representing a nursery of young zapupe plants about a year old, which are filed for inspection at the Bureau of Manufactures.]

HOLLAND.

IMPORTATIONS OF KAPOK FIBER.

Reporting from Rotterdam, Consul-General Soren Listoe furnishes the following trade information relating to kapok, a silky fiber secured from the seed pods of eriodendron trees in tropical countries:

There were imported in 1906 at Rotterdam 2,463 bales of cleaned kapok, and at Amsterdam 52,094 bales of cleaned and 1,380 bales of uncleaned kapok. There were sold at Rotterdam 3,013 bales of uncleaned and at Amsterdam 62,218 bales of cleaned and 1,555 bales of uncleaned kapok. The growth of this trade is shown by the imports of 1897, which amounted to 24,746 bales for both Rotterdam and Amsterdam.

The supply on January 1, 1907, was at Rotterdam 98 bales of cleaned kapok, and at Amsterdam 2,449 bales of cleaned and 77 bales of uncleaned kapok. The present quotations per half kilo (1.1 pound) are for East Indian: Extra cleaned, 15.2 cents; prime, 14.4 to 15.2 cents; cleaned, 11.2 to 14.4 cents, and uncleaned, 4.8 to 5.2 cents.

LACE INDUSTRY.

BELGIUM.

DEMAND EXCEEDS PRODUCTION—EFFECTS OF IMITATIONS.

The late Consul-General G. W. Roosevelt, of Brussels, reporting, before his last illness, on the lace industry of Belgium, said:

The year 1906 was a most prosperous one for the lace trade in Belgium. Real laces of all kinds were very fashionable, and the demand greatly exceeded the production. The proportionately small production of real-lace articles is attributed to several causes; the principal one is the continually increasing importance of manufacturing in Belgium, which, by comparatively high wages, persuaded young girls, who would otherwise devote themselves to the art of learning lace making as a means of livelihood, to discard the lace cushion and turn to the industrial establishments of the country, where they earn better wages.

Another serious cause is the competition of laces now on the market at tempting prices, known as real imitation or half-real lace, i. e., laces made of various machine-made braids with some hand or machine made foundation joined together and finished by hand.

The art of making these laces, representing only novelties, is so quickly acquired that lace workers preferred to give their time to such manufacture instead of applying themselves to the more artistic and difficult work of real-lace making; consequently the production of real goods suffers, especially point-gauze laces, as the imitations are principally made in districts where point-gauze laces only are made.

GREAT DEMAND FOR CERTAIN MAKES.

Duchess, Bruges, real appliqué, and Cluny were exported in large quantities to the United States and France. The demand for fine Venice point and point gauze laces exceeded production. The coarser make of Venice point, such as embroidered, beaded, and spangled goods were more or less neglected. Valenciennes sold well, although the demand for the real article was small compared with the demand for Calais and Nottingham imitation valenciennes. Trade in real torchon lace was dull. Princess goods, that is, the half real braid article in solid all princess and appliqué, represents an elegant looking though not very desirable braid lace, which is yet effective and inexpensive. Trade in these articles was very brisk and large orders were placed for them.

As to styles and shapes in vogue last year, yard goods, as well as piece goods, enjoyed practically equal favor. Yard goods in narrow and medium widths, galloon festoons with detachable designs and all-overs, the latter consisting of dresses, boleros, small collars, sets of collars and cuffs, chemisettes, plastrons, and other neckwear were in fair demand, while on the other hand there was scarcely any demand for handkerchiefs, large scarfs, etc. Prospects for 1907 are regarded as being particularly favorable to the Belgian real lace trade.

GERMANY.

MANY NEW DESIGNS PLACED ON THE MARKET.

Consul C. B. Hurst, writing from Plauen in regard to the new German effects in laces, says:

Owing to the great competition in the various kinds of machine-made laces and embroideries produced in different parts of Europe, it occurs at times that the specialties of one lace community are superseded in a measure by the varieties of other places called for by the prevailing fashions. The export of Plauen burnt-out laces has not been so strong to the United States as during the corresponding period of last year. It should not be imagined that the many manufacturers of this lace center are at all content with reproducing the designs and kinds in vogue during the previous season; on the contrary, they are constantly looking for new effects. The statement is not without foundation in fact that, when the demand in machine-made laces is slight, the designers are busier in creating new patterns than when the market is strong and repeat orders for the patterns in fashion keep the looms running.

Recently a Plauen weaver has made an entirely new effect having the appearance of moss that has been adopted by a number of manufacturers, and is known as the moss stitch. Not only does the local school of design accomplish much in training skilled draftsmen, strengthening and centralizing the home industry, but inducements are offered officially and by private organizations for the development of handmade lace as well as machine work. A local prize competition just arranged for new lace designs takes as a basis a rare and beautiful variety of Flemish lace of the seventeenth century called "Brabant guipure," made up in a diversity of effects, but in all of which are particularly noticeable, in contrast to other varieties of Flemish pillow laces, loose hanging knots tastefully attached in clusters. It is hoped by those interested that these novel variations, when put on the lace machines will, with other new effects along the regular lines, further demonstrate the resourceful ingenuity of the local designers.

GERMAN TEXTILE EXPERTS IN ASIA MINOR.

Consul F. S. Hannah, of Magdeburg, advises that under the auspices of the German department of the interior the secretary of the chamber of commerce at Plauen, Doctor Dietrich, in company with the textile expert and manufacturer, Otto Hannamann, had been sent to Asia Minor to study the conditions, process of manufacture, etc., of the lace industry. The investigations were to extend over a period of two months—May and June.

RUSSIAN MOHAIR WOOL.

EXTENT OF PRODUCTION IN THE TRANS-CAUCASIAN COUNTRY.

Consul Alexander Heingartner, writing from Riga, says that among the wools which are worked up by the silk-weaving industry along with silk that of the Angora goat, called mohair, ranks first

on account of its excellent qualities. He describes its production in Asiatic Russia as follows:

It is not so well known that in trans-Caucasia, in certain districts of the province of Kars, there exists a domestic breed of Angora goats, numbering several thousands, the wool of which is manufactured by the inhabitants in their cottage industries into various articles. The clip takes place only once a year, in April or May, before the commencement of "hairing." At this season of the year the wool grows very slowly, to the end of August only about 3½ inches; with the approach of winter, however, the growth becomes very rapid, and at shearing time the wool attains a length of 13½ inches.

Excepting head, neck, and feet the whole body of the animal is shorn, and the quantity of raw wool obtained from a good goat averages 4½ pounds. Shearing usually commences when the animal is 2 years old, though sometimes earlier.

The wool is sold locally for domestic consumption and for export, and brings, according to quality, 23 to 46 cents per pound. The yearly production of wool at present hardly exceeds 36,000 pounds, but the climatic conditions in trans-Caucasia are very favorable to the animals and the production could be largely extended.

ARGENTINE SILK INDUSTRY.

RAPID EXTENSION OF MULBERRY GROVES AND COCOON CULTURE.

Consul-General A. G. Snyder, of Buenos Aires, reports that the "Sociedad Sericola Argentina" is responsible for the statement that the care of silkworms throughout that Republic has greatly developed during the past two years, concerning which he says:

Five million mulberry trees have been planted lately in the province of Santa Fe, which, added to about 200,000 from 2 to 5 years old, will make the possible annual production in that province some 100,000 kilos (kilo, 2½ pounds) of cocoons. Equally encouraging reports come from the province of Cordoba, where, in the locality of Caroya alone, are 50,000 trees under cultivation. The eggs and plants were secured by the society and, while it is impossible to arrive at any exact estimate for two or three years, results to date have been very satisfactory.

The same authority states that there are 300,000 trees 30 to 40 years old in Tucuman, with an assured output of 250,000 kilos of cocoons. The provinces of Salta, Jujuy, and Santiago del Estero are likewise interested in this industry, and I understand that the greater part of the business is in control of Italian immigrants.

DRUGS AND MEDICINES.

CAMPHOR INDUSTRY.

FORMOSA.

GOVERNMENT ENCOURAGING PLANTING—CROPS AND REFINING.

Consul J. H. Arnold, of Tamsui, reports, as the result of an interview with the chief of the camphor bureau of the Formosan government, the following information regarding the production of camphor:

The manufacture of camphor in Formosa is confined to trees of upward of 50 years of age. The camphor bureau prohibits the cutting down of trees of a less age than 50 years. Although investigations as to the number of old trees in the island are not as yet completed, the number of these trees is far less than investigations a few years ago made it appear. Recent investigations warrant the statement that the supply of old trees will, at the present rate of cutting, become exhausted in less than fifty years. The old trees now standing are confined to the mountainous eastern half of the island, in regions for the most part still under control of savage tribes. The work of subjugating these tribes is difficult and one requiring much time. At the present rate of subjugation it will be many years before their territory can be safely exploited. Besides the subjugation of savage tribes, there are other difficulties to be overcome. These mountains are covered with dense jungles, and the work of building roads in order to render the camphor forests accessible to profitable exploitation is one requiring the expenditure of much labor and time.

CLIMATE AND OTHER DISADVANTAGES.

Moreover, the sanitary conditions throughout much of this territory are such as to materially reduce the efficiency of labor employed therein. For instance, in the Daito prefecture the supply of trees is estimated at a quantity sufficient to produce 40,000,000 pounds of crude camphor. Owing to the lack of roads and to the presence of head-hunting tribes of savages, much of this material will have to lie untouched for years. Furthermore, the sanitary conditions in this district are such as to seriously cripple the labor employed there. A Japanese company took 1,000 coolies into this district a few years ago for the purpose of exploiting the camphor forests. Reports from this company state that 33 per cent of its labor is incapacitated through the contraction of fevers. Last year twelve of its men (Japanese) were decapitated by head-hunting savages.

At present the greater part of the camphor produced in the island comes from the trees in the Toen prefecture. There is reported here a scarcity of coolie labor to work the trees. With prosperous conditions obtaining throughout the civilized portions of the island, there

is naturally a reluctance upon the part of the coolie labor to risk attacks by savages in engaging in labor in the camphor forests at a wage equivalent to 40 cents United States currency per day, when they are enabled to secure one-half this amount in the more peaceful pursuits on the lowlands. Thus the difficulties to be overcome in order to exploit the remaining camphor forests of the island are such as to render the cost of securing the product a constantly increasing quantity.

The camphor bureau expects to produce 5,000,000 kin (6,667,000 pounds) of crude camphor, and about one-half that amount of camphor oil during the present year. They expect to produce a similar quantity each year during the next few years with probabilities of a slight increase thereafter. It is said that Formosa at present produces about 75 per cent of the world's supply of camphor, the remaining 25 per cent being produced by Japan and China.

AFFORESTATION.

Until Japan took possession of this island practically nothing was done to replace the trees cut down, except what was done by nature itself. The camphor tree grows readily from seed and requires but little attention. Since the organization of the camphor monopoly in 1899 the Formosan government adopted a system of afforestation which, it is hoped, will result in guaranteeing to the island a constant supply of raw materials. The camphor bureau provides three methods of afforestation: Government replanting; replanting by schools, villages, and agricultural societies, and replanting by private concerns. Up to the present year the securing of seeds was difficult.

While the Formosan trees are good seed producers, yet, owing to the fact that the seed ripens quickly, and if not picked within two days after it blows away, much difficulty has been experienced in collecting seeds, as the trees were not afforded the proper protection. Owing to the large exportations of Japanese seeds to foreign countries, the Formosan authorities could not depend upon Japan for a supply. The camphor bureau now designates and registers certain of the seed-producing trees and prohibits their being cut down; in this manner a plentiful supply of seeds is being provided for. Agricultural experiment stations are maintained throughout the island, and to these is assigned the task of planting the seeds and providing nurseries for the young plants. The young plants are taken from these nurseries and replanted in districts set aside for that purpose. It required several years to secure sufficient trained cooly labor to attend to the setting out of these trees.

FUTURE PLANS—TWO VARIETIES OF TREES.

Since 1900 the government has planted about 3,000,000 young trees and has arranged to add another 500,000 to this number during the present year. It is expected to be able to plant 750,000 each year after the present year. Trees planted in the mountainous districts are set out with the idea of prohibiting their utilization for camphor production for a period of forty or fifty years. Those which are planted on the lowlands are set close together in rows with the idea in view of utilizing their leaves, after they have attained a ten-years' growth, in the manufacture of the crude camphor. The lowlands planted in camphor are designated as cam-

phor gardens rather than as camphor forests. Beyond an occasional clearing of the ground about the young tree it requires no attention in the way of cultivation or irrigation. There are many varieties of worms which tend to attack the young plants, but the government experts report that but 6 trees out of each 1,000 planted die.

There are two varieties of trees—the camphor-producing tree and the camphor-oil producing tree. The former is the more valuable. It requires an expert to detect the difference between these two varieties in the standing trees. The camphor oil produces but 0.49 of its weight in camphor. The government nurseries furnish young plants to the schools, villages, and agricultural societies desirous of planting the camphor tree, and many such have availed themselves of this offer. Private concerns in Formosa desirous of engaging in the raising of camphor are also supplied by the government nurseries with the young plants. Hence it is quite evident that afforestation of camphor in Formosa is proceeding at a good pace. Reports from Japan estimate the number of trees planted there during the past ten years at 8,000,000. Reports from China state that, while the Chinese are interesting themselves in the question of afforestation, up to the present nothing has been done toward planting of new trees.

PROCESSES OF MANUFACTURE.

Crude camphor is manufactured from the wood by the simple process of distillation. Chips of camphor wood are placed in a clay-plastered retort which rests upon a circular wooden rim of a water pan. This water pan sets over a fire. Connected with the retort at some distance away are the crystallization and cooling boxes in which the camphor vapor passes, is cooled, and crystallized. (For a detailed description of this process see Davidson's "Formosa, Past and Present.") The camphor thus crystallized is dark in appearance and is known as crude camphor. These stills or stoves are erected as close to the supply of the raw material as is possible; hence throughout the camphor-producing districts there are found many of these stoves. The products of the different stoves are not uniform in quality. The monopoly bureau operates in Taihoku city a camphor factory where the products of the various stoves are graded and by redistillation rendered uniform. This factory produces two grades of camphor, known as "B" and "BB" grades. The "B" grade, that which is exported to the American market, is rated crude camphor, containing a higher percentage of oil and water than the "BB" grade, which more nearly approaches a refined camphor. The "BB" grade differs from properly refined camphor in that it is not clarified. Owing to the fact that the monopoly bureau's plant was partially destroyed by fire a few months ago it has been impossible to produce the "BB" grade, and consumers are obliged to take the "B" grade product until the plant is repaired. The crude camphor which is not exported to foreign markets is sent, along with the camphor oil, to the Kobe refineries, where refining is completed.

Although the "BB" grade is rated by the American customs examiners as a refined camphor, yet the camphor bureau in Formosa terms it crude camphor, for the reason that a clarifying process is necessary to the completion of the refining.

MONOPOLY IN SALES—AN ARTIFICIAL SUBSTITUTE.

It might be said that Formosa, in conjunction with Japan, holds a monopoly upon the production and sale of the world's supply of camphor. Although the customs returns for China show that there were exported from that country during the year 1906 about 12,000 piculs (1,600,000 pounds) of crude camphor, yet the Formosan industry fears no competition from that source. Reports of planting camphor in Ceylon, Florida, Texas, and Mexico do not disturb the prospects of the Formosan product in the eyes of the authorities here. These contend that the more camphor trees there are planted the less likelihood there will be of the successful production of an artificial substitute. Artificially produced camphor seems to be a reality, but it is contended that its cost of production is too great to warrant its being made to enter into competition with the natural camphor.

The bulk of the world's camphor production goes into the manufacture of celluloid. It is estimated that about 70 per cent of all camphor produced is utilized in the manufacture of celluloid. Owing to the difficulties which many manufacturers of celluloid have experienced in securing enough camphor to fill their orders these have often been obliged to purchase supplies through brokers. The Formosan government now declares its intention of remedying this state of affairs to some extent, at least. The camphor bureau has instructed its selling agents to supply first and foremost its customers among the celluloid manufacturers. A list is to be made up setting forth the demands of the various celluloid mills, basing these demands upon the capacities of the respective mills. In the future these manufacturers will receive their supplies upon a basis of their actual demands.

FUTURE PLANS OF JAPANESE.

As Japanese capital is already engaging in the erection of celluloid factories in Japan it is only to be expected that the Japanese manufacturer will also come in for his pro rata share of raw materials. The monopoly bureau disposes of its camphor through a selling agent. Each year a contract is made with an agent for the disposition of the products of the bureau. At present a British firm [name on file at Bureau of Manufactures] holds the selling agency. It is rumored that with the expiration of the present fiscal year in March, 1908, the selling agency will pass into Japanese hands. While this rumor sounds plausible, naturally the authorities have nothing to say in regard to it.

The monopoly bureau regulates the prices to be made to the foreign purchasers and designates the amounts to be sold to certain classes of purchasers. The present price of the "B" grade camphor is \$69.50 United States gold a picul (133½ pounds), f. o. b. New York. This price is considerably higher than that which obtained five years ago. As for further advances, it appears that there will be no advances in the near future. I dare say the fear of encouraging the production of an artificial camphor will in a great measure retard tendencies to future advancements in the prices of the Formosan product.

JAPAN.

STATISTICS OF PRODUCTION.

The following are the official statistics of the Japanese camphor industry for the last three years, a kin being 1.325 pounds avoirdupois, and a yen 49.8 cents:

Year.	Camphor.	Camphor oil.
	Kin.	Kin.
1904		3,434,689
1905	4,102,362	3,417,531
1906 (estimated)	4,185,906	3,484,387

About 90 per cent of the whole production is exported to foreign markets to be wrought upon and distributed. The value of the commodity imported into Japan during the past six years in the form of celluloid (sheet and rod) is as follows:

Year.	Yen.	Year.	Yen.
1901	833,516	1904	253,643
1902	275,339	1905	496,865
1903	339,499	1906	818,122

Kin=1.325 pounds avoirdupois; yen=49.8 cents.

The productive power of Japan is stated as follows:

	Camphor.	Camphor oil.
	Kin.	Kin.
Formosa	32,000,000	22,360,000
Japan proper	32,235,000	34,290,000

The monopoly bureau is now encouraging the cultivation of camphor trees, with a view to maintaining the productive power in the staple commodity.

A Japanese newspaper states that the Tokyo government has on foot a project for the extensive planting of forests of camphor trees. The demand for camphor increases, having now reached over 10,500,000 pounds annually, and it will not be long until it reaches 13,000,000 pounds, says the Japanese authority.

CHINA.

PROGRESS AND EXTENT OF PRODUCTION.

An instructive review of the development of the camphor industry in China and its relation to the Japanese production is furnished by Consul Julean H. Arnold, of Tamsui, Formosa. He says:

Production in the camphor-producing districts in China is at present confined to the region along the Min River in Fukien Province, although, according to the Chinese customs returns, trees are to be found in Chekiang, Kwantung, Kwansi, Kansuh, and Szechuen provinces. These returns show that camphor is exported from the ports of Fuchau, Santuao, and Wuchow. It is only dur-

ing the past few years that China has taken to the production of camphor, and this is owing to the initiative of the Japanese. During the year 1906 there were upward of 1,100,000 kin (1,467,000 pounds) exported. As to the development of the camphor industry in the other provinces, that is a question for future consideration. The amounts exported from the three ports above mentioned, presumably for the year 1906, were: From Fuchau, 1,515,867 pounds; Santuao, 15,600 pounds; Wuchow, 41,860 pounds; a total of 1,573,320 pounds. These exports went to Hongkong, where they were reexported to Europe and America. During the past year the prices obtaining in Fuchau were not uniform, owing to the fluctuations in the price of silver and to the increasing demands for the camphor. The prices obtaining in China are controlled by quotations from Hongkong. The prices in Fuchau during the year varied from \$134 to \$170 Mexican per picul (133½ pounds).

The camphor districts of Fukien Province are confined to the region along the Min River in the districts of the Foochow, Inping, Kenning, Shaowu, and Funing prefectures. The Fukien trees do not grow in mountain forests, as in Formosa, but are scattered about the country. They are very limited in number and are for the most part old trees, associated with the villages or cities in which they are to be found under joint ownership, in connection with the ideas of Feng Shui (wind and water influences). Hence there is some difficulty in securing the trees for the production of camphor. In spite of the reckless cutting down of many of these trees during the past few years, there still remains a goodly number throughout the various districts. It is now contended that owing to the enhancement in the price of camphor, the remaining trees will soon give way to the ax.

FUTURE SUPPLY.

Thus it is apparent that the supply of camphor trees along the Min River is not inexhaustible, and, according to the opinion of some persons concerned in the industry, at the present rate of production of camphor, these trees will be capable of yielding material for but four or five years more. The Chinese authorities are intending to plant young shoots to replenish the supply, but there are no indications as yet of action having been taken in this direction.

In regard to the possibilities in Chekiang Province, the number of available trees is not as yet known. It seems that the trees of this province are confined to the northern border of Fukien Province. The number of these trees and the quality must be left to future investigations. It appears that the trees of Kiangli Province, too, are confined to the Fukien boundary. As to the provinces of Kuangsung and Kuangsi, with the exception of the shipments made from the port of Wuchow, little is known. There are trees to be found in Szechuen Province, but to what extent future investigations will have to determine.

In short, the development of the camphor industry in China has made remarkable progress during the past few years, due mostly to Japanese initiative and to the advancement in the price of camphor. No complete investigations have as yet been made setting forth the true state of affairs as regards the materials available in the provinces other than in Fukien Province.

INCREASING SHIPMENTS FROM FUCHAU.

Consul S. L. Gracey, of Fuchau, makes the following report on the Chinese camphor trade:

Camphor is being exploited by the Chinese, Japanese, and British, who are ruthlessly cutting down the trees as fast as they can be bought from the owners. There are no camphor forests in this district, but there are great numbers of trees scattered all over the northern part of the Province. New rules have recently been issued by the viceroy, in which it is proposed to impose a provincial tax of 1 tael (76 cents) on every picul (133½ pounds) of camphor produced and 4 mace (28 cents) on each 100 pounds of camphor oil, which it is calculated will produce a revenue of from \$8,300 to \$11,450, which sum is to be expended in planting and cultivating new trees. Some provision of this kind is absolutely necessary, else the camphor product here will soon be a thing of the past. Five young trees are to be planted for every tree cut down. As the viceroy says, "Camphor trees can not produce camphor unless they are several tens or hundreds of years old," it will be seen that as a fact the product will soon cease, as a long interval must elapse between the destruction of the existing trees and the growth of the new trees to a state fit to be cut. There are about twenty distilleries now in operation near this city and many more up the country where the trees are grown. Of exports the greatest increase has been in the shipment of camphor from Fuchau, as the following table will show:

Years.	Camphor.		Camphor oil.	
	Pounds.	Gold value.	Pounds.	Gold value.
1904	161,333	\$47,102	167,333	\$10,306
1905	538,267	223,954	221,733	14,856
1906	1,516,600	932,798	425,200	42,078

FRANCE.

RELATIVE POSITIONS OF THE NATURAL AND ARTIFICIAL PRODUCT.

Consul William H. Hunt, writing from St. Etienne, France, says that the growth of the celluloid industry has caused the formation of numerous companies for the purpose of manufacturing camphor artificially, in order to profit by the increasing public favor which celluloid enjoys. Inquiries having been made by many persons as to this new industry, the following account of the progress in this line by the consul may not be without value:

Up to recently only natural camphor was to be found in commerce, and of exclusively Japanese origin. The monopoly of this product was established by the Nippon Government in 1899, and since that time the price of camphor has steadily risen. But this increase is not solely attributed to natural causes, as it is impossible to know whether Japan regulates the output or else holds some back, being unable to deliver large amounts. It might be more correct to say that the advanced price is due rather to the increasing demands of the celluloid industry, which consumes by far the largest quantity.

It is not surprising, therefore, under these circumstances, that synthetic chemistry has been trying for several years to solve the problem of artificial camphor. Its efforts have been crowned with success, for recently a Berlin manufacturer has placed on the market a relatively large quantity of synthetic camphor. Public attention is consequently being drawn to the advantages of this recent product of the laboratory. But before going into the details of this combination it may be well to pass a few cursory remarks on natural camphor, proceeding to the artificial article by natural transition.

JAPANESE SELLING PRICES IN EUROPE.

Natural camphor is called "Japan camphor" or "Camphor of Laureace," and is obtained by distillation from a kind of laurel (*Cinamom camphora*). This tree is found over all western Asia; it exists also in India and in California, but it is in the island of Formosa that it is most extensively cultivated, and which is recognized as the seat of camphor production. After the Chinese-Japanese war, Formosa became a Japanese possession and the camphor industry passed into the hands of the new owners. Ninety per cent of the world's supply is furnished by this island, the remainder coming from the mainland (Japan) and from some Chinese provinces, Tokioen, for instance. It was easy, therefore, for Japan to establish a monopoly on camphor and oil of camphor.

The exact production of Japan is not known, but from 3,000,000 to 4,000,000 kilos (kilo, 2½ pounds) is considered a fair estimate. Of this amount fully 1,000,000 kilos are exported to Germany and delivered at present by the Japanese Government to the large consumers at \$109 per 100 kilos (220 pounds). But on the market of Hamburg the price is much higher (\$165), and this difference in the price is well known to the Japanese Government, yet it delivers constantly to the principal consumers, that is to say to the manufacturers of celluloid and to refiners, the raw camphor at the fixed price of \$109, "franco" to the port of entry. The reason for this relatively low price arises from the fact that the Government only pays from \$20 to \$26 per 100 kilos to the cultivators, consequently there is left a good margin for lowering still more the price if necessary.

SYNTHETIC CAMPHOR.

In 1903 the chemist Kindt obtained, by the action of hydrochloric acid on essence of turpentine, a crystallized product which he took for camphor, and gave it the name of artificial camphor. The name has been adopted, although the product of "Kindt" had but a distant resemblance to natural camphor and had but little practical uses. Synthetic camphor, on the other hand, is found in the market, and is remarkably well adapted to the manufacture of celluloid, for it has the same properties as the natural product, forming with collodion a solid mixture.

To obtain synthetic camphor it was necessary to know the composition of natural camphor. This has been established within the last few years by several chemists after long research. At present the artificial product can be obtained by four different processes, all of which have as basis, essence of turpentine, or more exactly of Pinene, which constitutes 70 per cent of its composition. It would be

out of place to go into all the details of its manufacture—and even impossible—as certain methods recently made known await scientific proofs. Further it is equally impossible to pronounce an opinion as to the merits of these methods as regards their industrial value. Several large houses, chiefly German, are making strenuous efforts to compete with the natural camphor, and with every prospect of reaping large profits.

Yet the outlook, however fair, is not without one or two disadvantages. The first is the high price of essence of turpentine and its derivatives. For the last six years the prices have gone up from \$13 to \$20 per 100 kilos, and they continue to rise. The second consists in the fact that the celluloid industry is endeavoring to do without camphor by substituting for it another substance called casein, a nonflammable and odorless product, and which has already been the subject of a report from this consulate.

In any case, it is certain that if the Japanese Government finds that synthetic camphor is becoming a serious competitor, and consequently compromising the market for the natural article, it will lower the price of camphor (the margin allows it) even below the cost price of the foreign manufacturers.

UNITED STATES.

SUCCESSFUL EXPERIMENTS IN GROWING TREES.

Secretary James Wilson, of the Department of Agriculture, in a recent address delivered before the Americus Club, of Pittsburg, declared that the United States was successfully experimenting in the production of camphor. He said, in part:

For years the Department has been distributing camphor-tree seed and thousands of trees are now growing throughout the South and in the Pacific coast States. Two years ago a serious effort was made to develop the manufacture of camphor from these trees. By improvements in manufacturing processes satisfactory results have been accomplished and a large manufacturing concern is now building up a camphor grove of 2,000 acres in Florida, from which it hopes to make its camphor. This firm uses more than \$500,000 worth of camphor every year.

PRICES OF CAMPHOR RAPIDLY ADVANCING.

“Notes,” published at Chicago by the National Association of Retail Druggists, says of camphor prices:

The price of camphor in the past few years has soared from around 40 cents a pound to about \$1.40, and it is expected to go higher. We learn that of 40 druggists in Chicago 3 sell it at 10 cents an ounce, 17 get 15 cents, and 20 get 20 cents. Camphor spirits sell all the way from 5 to 15 cents an ounce, and camphorated oil likewise brings from 5 to 15 cents an ounce.

Camphor was quoted by the Oil, Paint and Drug Reporter on June 3 at \$1.24 per pound for American refined in barrels, and \$1.25 in cases; and \$1.23 to \$1.28 for foreign refined.

PHARMACEUTICAL SUPPLIES.

SMYRNA'S PURCHASES—IMPORTED DRUGS CHEMICALLY EXAMINED.

Consul E. L. Harris, of Smyrna, reports that chemists' depots or drug stores were established in that Turkish city in the early part of the nineteenth century. He continues:

Up to that time the dispensing was done by doctors who kept a stock of drugs for their patients, and many large retail stores also

sold drugs of various kinds, but only as a secondary line. Within the last few years, however, the Ottoman Government has taken stringent measures to prevent inexperienced pharmacists from dispensing all kinds of chemical compounds, and they now must complete a full curriculum of study before obtaining a chemist's diploma, issued by the Imperial School of Medicine. In the case of those who possess a diploma issued by a recognized institution of some state other than Turkey the holder must pass an examination before the school of medicine.

The quantity of drugs and other chemists' supplies annually imported into Smyrna is estimated at \$600,000 per annum, 20 per cent of which is used in Smyrna, 20 per cent exported to the islands of the archipelago, and the remainder is sent to those inland towns which draw their supply of drugs from this city. The 20 per cent does not constitute the total importation of the islands, as on account of the excellent means of communication with Europe a large quantity of their supplies are imported direct.

The annual importation of quinine is calculated to be 9,000 to 11,000 pounds, and was at one time supplied solely by France, but recently a German firm has entered the market and by dint of active canvassing has obtained a large share of the trade. Germany furnishes almost the whole of the wadding and gauze used, the annual import of which is nearly 80,000 pounds. The estimated import of cod-liver oil is 65,000 pounds, the price of which naturally varies according to the result of the Norwegian fisheries from \$20 to \$80 per 220 pounds. The goods are imported generally through Hamburg and occasionally via Havre. About 30,000 pounds of castor oil are imported, at a price varying from \$10 to \$15 per 220 pounds. A certain portion comes from Italy, but Marseille is the chief source of supply. At the time when Italy purchased large quantities of wine in Asia Minor she practically supplied all of the 20,000 pounds of glycerin used annually, but this trade has now been almost entirely taken out of her hands by Germany, England, and France. About \$2,000 worth of borax and boric acid and \$2,000 worth of carbolic acid are required on this market. As a whole the drugs required by the Smyrna market are supplied by the following countries, given in the order of their importance: Germany, France, England, Italy, Austria, and Switzerland. France holds the lead in the supply of specialties.

KINDS OF DRUGS NOT PERMITTED.

All drugs imported into the Ottoman Empire have to be chemically examined by the chemists attached to the Ottoman custom-houses, and the entry of those which do not comply with the requirements of the *Codex Française*, which is the pharmacopœia adopted by the Imperial Government, is not permitted. For patent medicines the custom-house chemists must be furnished with a formula giving the names of the drugs forming its component parts. This certificate must previously have been viséed by an Ottoman consul.

The importation of those drugs which contain any of the following substances is strictly prohibited: Cocaine, sulphite compositions, Doctor Koch's antituberculosis serum, fish herb (*cocculus indicus*), picrotoxine, and cannabis indica (that is, the specialties manufactured from a preparation of a species of hemp). The entry also of the following drugs, which may be used in the preparation of explo-

sives, is prohibited, and they will be confiscated if an attempt is made to import them: Chlorate of potash, chlorate of soda, nitrate of potash and nitrate of soda, picrates, nitroglycerin, gun cotton, and similar chemical drugs. As, however, some of these drugs are indispensable in medicine, they may be obtained from the offices of the grand master of artillery in quantities sufficient for the immediate use of each pharmacy.

American druggists who wish to compete on this market would do well to always quote their prices in the coin of the country *c. i. f.* Local representation is necessary if any headway is to be made against the competition of European countries now supplying this market.

AUSTRALIAN MEDICINE INSPECTION.

CLOSE RESTRICTIONS AS TO THE ADMISSION OF CERTAIN DRUGS.

Consul-General J. P. Bray advises that an important step, under the commerce act of the Commonwealth, has been taken by the Australian department of trade and customs in regard to the examination of imported medicines, of which a large amount is received annually from the United States. He writes from Melbourne:

Circular instructions have been issued by the department mentioned to the collector of customs at the different ports of Australia as follows:

In connection with the importation of medicines with medicinal preparations arrangements have been made with the State governments by which the State government analyst will assist this department by examining samples of the above goods, with a view to testing the accuracy of the trade description, and to advise whether the preparations are likely to be injurious to health. The collector will therefore arrange to obtain such advice when occasion requires.

It is necessary that collectors should exercise a reasonable discretion in this matter and avoid unnecessary trouble to importers. In the following cases examinations, as directed above, are not desired: (a) When the requirements of regulation 6 (2) (b) have been complied with. (b) When the composition of the preparation is already known to the analyst. (c) When the preparations are known to the analyst to be free from any of the substances mentioned in regulation 6 (2) (b) and are of established repute as remedial agents.

Unless there is strong suspicion of serious misdescription no importation is to be detained pending the result of inquiry or analysis, since, if the applied description is found to be false, the importer is liable to the prescribed penalty for having imported goods bearing a false trade description. Care should be exercised in all cases to see that the samples are properly identified in case further action is necessary. In order to prevent duplication of inquiries or analysis, the collector will promptly report each case being dealt with.

The regulation referred to in the instructions to collectors as "regulation 6 (2) (b)" provides that if any of the following drugs, or the salts or derivatives thereof, were used in the medicine, the "trade description" must set out the names of the drugs clearly and fully: Opium, morphine, cocaine, heroin, stramonium, *nux vomica*, *cannabis indica*, bromides, sulphonal, trional, veronal, paraldehyde or any synthetic hypnotic substance, phenazonum, phenacetinum or acetanilidum, or any allied synthetic substance, chloral hydrate, belladonna, cotton root, ergot, or any abortifacient.

The Bureau of Manufactures supplements the foregoing report with the following statistics of exports of chemicals and pharmaceutical products from the United States to Australasia for the past five fiscal years, each ended June 30:

Chemicals, drugs, dyes, and medicines.	1902.	1903.	1904.	1905.	1906.
Acids.....	\$35,689	\$5,319	\$21,467	\$28,273	\$6,864
Baking powders.....	722	277	299	162	704
Barks, extracts of, for tanning.....					2,099
Copper, sulphate of.....				6,046	12,898
Dyes and dyestuffs.....	12,518	12,043	12,772	13,942	10,739
Lime, acetate of.....			32	5,026	2,761
Medicines, patent or proprietary.....	262,994	248,734	299,741	371,483	348,575
Roots, herbs, and barks, n. e. s.....	2,986	620	2,213	2,263	1,190
Washing powder and fluid.....	2,019	2,371	1,639	1,485	1,572
All other.....	388,438	459,994	429,182	395,848	384,526
Total.....	695,316	729,358	767,345	824,528	771,903

PERFUMERY IN ARABIA.

OPPORTUNITY FOR THE ENLARGEMENT OF AMERICAN TRADE.

Consul William Coffin, of Maskat, reports as follows concerning the use of perfumery in the Arabian Sultanate of Oman and the opportunity offered there for the enlargement of American trade:

Perfumery, an article of luxury among Europeans, seems to be almost a household necessity in Oman, where men as well as women use it lavishly. On formal visits it is usually offered to a guest after sherbet and coffee have been served, and a favorite present where many services are required by gifts instead of money, is an expensive bottle of scent. Arabia, so long famous for its spices and perfumes, now goes abroad for its perfumery. Frankincense and myrrh are still produced in and exported from the Hadramaut district, but the perfumery distilled in the country is a very inferior article. Most of the supply comes from France. The French perfumery is attractively put up in gaily lithographed pasteboard boxes, with cartons inside cut to fit the bottles. The latter are always fancy, sometimes of cut glass. Bottles containing from 1½ to 2½ ounces retail at from 81 cents to \$4.86.

A small quantity of American perfumery finds its way here from India. It is sold at about the same prices as the French product, but as the bottles are comparatively plain and the package nowhere near as elaborate as the French article, the Arab feels that he is getting more for his money when he buys the latter. The native perfumery is put up in bottles of ¼-ounce capacity and less. It is very heavy and oily. The Arab likes a strong or heavy perfume. Attar of roses, musk, and almond are some of his favorite scents.

HOW GOODS SHOULD BE PUT UP.

American perfumery, in order to compete with the French article, should also be elaborately put up in lithographed pasteboard boxes, preferably a box for each bottle. The bottle should be fancy in shape and wrapped in tissue paper. The more coverings to undo, the better pleased is the purchaser. Delicate essences are not popular and should not be sent to this market. Many Arabs use silver per-

fume bottles of native manufacture. I think that atomizers, if introduced, would be a popular novelty and would have a limited sale.

There is a market for imported perfumery not only in Maskat, but in all the towns of Oman, though its sale is necessarily limited to the better class of Arabs. The poor people, who are largely in the majority, can only afford the native article. The supply now reaches Oman chiefly through wholesalers in India, but there is no reason why manufacturers should not trade direct. The sales, in a country where the mass of the population is so poor, can not be very large, but the trade is nevertheless well worth having, and a connection once established would probably result in a permanent demand. [A list of the principal dealers in perfumery in Maskat, sent by Consul Coffin, is on file in the Bureau of Manufactures.]

OPIUM CURE.

TRIAL RESULTS IN BORNEO.

A report from Consul Lester Maynard, of Sandakan, shows that the opium cure of the Straits Settlements has reached Borneo and has been tried with good results. The consul reports:

A drug which is claimed to be a cure for the opium habit has recently been introduced into British North Borneo, and although it has been used but a short time many old opium smokers claim that they have greatly reduced the amount of opium smoked by them daily. The drug is used with the object of counteracting the effects and finally curing the craving for opium. A concoction is made by boiling the leaves and mixing the result with opium. After smoking, a dose of two tablespoonfuls of the drug should be taken, and this lessens the desire for further indulgence. The drug is known to the Chinese as Tong Hing Chu.

Mr. L. Wray, curator of the Taiping Museum at Perak, has identified the plant as "*Combretum sundaicum*." It is a woody climber, with opposite leaves, in size and shape somewhat resembling that of the pear tree, and bears globular clusters of small white flowers arranged in panicles, the flower being followed by a red fruit about an inch long furnished with four longitudinal wings. The plant is abundant on the plains around Kuala Lumpur, in Selangor. The properties of the combretaceæ, the natural order to which it belongs, are very little known. Some are used in malarial fevers, two are known to possess vermifuge properties, and one is used for poisoning bats. A few preliminary tests applied in the research laboratory of the Pharmaceutical Society of Great Britain to the small quantity of the leaves available indicate only the presence of an astringent principle and a coloring matter, but do not afford a definite proof of the presence of any alkaloid or glucoside, although the leaves appear to contain some substance as yet unknown to chemists. About 4 piculs (1 picul = 133½ pounds) have been imported into Sandakan this year, and the price is about \$4.54 United States currency per picul.

JEWELRY TRADE.

DIAMOND CUTTING IN AMSTERDAM.

WOMEN MAKE THE BEST WORKERS—BIG EXPORTS TO AMERICA.

Consul Frank D. Hill, in reviewing the prosperous diamond trade of Amsterdam, states that for the calendar year 1906 the amount of diamonds invoiced at that Dutch port for the United States was \$12,435,163, far and away the largest amount ever sent in one year from Amsterdam to America. As more than 92 per cent of these were cut, and as about one-half of the extensive cut diamond purchases of this country last year were made in Holland, the following report on this subject from the consul is of considerable interest:

Among the many industries of Amsterdam that of diamond cutting has long been an important one. Since the fifteenth century (when it was started) it has been extensively carried on, and to-day no fewer than sixty firms are registered in Amsterdam as diamond-cutting or diamond-polishing companies. Some of the firms restrict themselves entirely to one process, that of diamond polishing, while others carry out the whole of the three processes, diamond splitting, diamond cutting, and diamond polishing. In one of these typical complete factories 90 per cent of all the many thousands of rough uncut diamonds received every year come from South Africa, and those principally from the De Beers mine at Kimberley. It gives one a little idea of the importance of this industry in Amsterdam to realize that 400,000 diamonds were cut and polished in this factory in one year alone, and that 300 to 350 men are daily employed in the different workrooms by this one company, which also employs about twenty women, who deserve to be mentioned, since they are intrusted with the very important work of diamond cutting. Although the firm was established in 1843, it was not until 1875 that women were employed in the factory, but so satisfactory was the experiment that now nearly the entire work of diamond cutting is done by them, thousands of diamonds passing annually through their skillful fingers.

SPLITTING PROCESS.

The first of the three processes through which the rough, uncut diamond has to pass is that of splitting the stone. About twelve men are employed in this work, which is all done by hand without the aid of machinery. It is not a lengthy process unless the stone contains a great many flaws, for an ordinary diamond weighing about 10 carats can generally be split in fifteen minutes. The object is to divide the rough, uncut diamond (containing flaws) into several pure, flawless stones, and in order to do this strong pressure is exerted on the weak spots (caused by flaws) by means of a diamond-tipped tool, which is held in the right hand. It is an old and well-

recognized principle that "nothing but a diamond will cut a diamond." In the left hand is held a curiously shaped little frame, into which the rough diamond now to be split has been firmly waxed. Great pressure is then used on the weak spot, and in a few moments the diamond splits into two portions. Should there be any more flaws in either of these sections the process is repeated until several pure, flawless diamonds lie on the rough wooden tables of the workmen, ready now for the second process, that of cutting. This process, like the first, is almost entirely performed by hand, but with one striking difference—the work is done by women and girls instead of men. Only in the case of very hard, difficult stones is machinery necessary, and then "a mere man" is employed to use it.

A pleasant workshop has been built for the women on the quay close to the factory. In this room about twenty women and girls sit at several tables, placed where the light from the six large windows can fall on their work. They work eight hours a day, their wages varying from 8 to 20 guilders (\$3.21 to \$8.04) a week.

The work of diamond cutting is a delicate and difficult task, very trying to the eyes, too, for some of the diamonds are so minute that 400 of them or more may weigh only half a carat. Each worker is responsible for the packet of diamonds she receives at intervals from the forewoman, and if by accident she loses one of the precious stones she has either to find it again or refund its value.

THE CUTTING OPERATION.

The tools employed in diamond cutting are very similar in appearance to those employed in the first process, that of diamond splitting. In both cases diamonds are used as knives after having been firmly waxed into the tip of pear-shaped tools. The women hold in the left hand the rough diamond they wish to cut, which has also been firmly waxed into a wooden frame. Little jets of gas are always kept burning on the various tables, ready to be used at any moment when melted wax is necessary.

The only real difference in the two processes of diamond splitting and diamond cutting lies in the fact that whereas the men who split the diamonds use pressure on one spot only (where the flaw occurs), the women spend their energies in rounding the whole stone and carefully cutting off all angles to be seen on its surface by means of the sharp diamonds they hold in their right hands. Occasionally they have very large diamonds to cut, which take a great deal of time, but an ordinary stone weighing about 10 carats would take on an average of a whole day's work—a day of eight hours. When the diamond has been sufficiently cut and rounded, it is then ready for the third and last process, that of polishing. This work requires a great deal of time and skill, and is performed entirely by machinery, a huge steam engine supplying the motive power for all the iron disks.

There are ten large workrooms in which the 300 men work who are engaged in the difficult process of diamond polishing, their wages averaging about 20 guilders a week (\$8.04). The process consists in giving to the rounded diamonds what is termed in technical language their necessary "sides." All diamonds are divided into two classes, "brilliants" and "roses," although the only real difference between them lies in the number of "sides" they individually possess after having been polished in one of the many diamond factories.

NUMBER OF FACES.

A "brilliant" must possess fifty-eight "sides" (a few years ago the lowest number was sixty-four, for there are fashions in diamond cutting), but a rose need only possess twenty-four "sides." Another though slight difference between them is that a "brilliant" is pointed at both ends, while a "rose" diamond has one end flattened and the other pointed. When the diamond is ready to be polished it has to be first soldered into a pear-shaped frame made of zinc and then dipped into a preparation of oil and diamond dust before being fastened (with three others) into a strong frame placed in close proximity to an iron wheel. This little disk is then set in motion by connecting it with the great engine on the ground floor, and the wheel immediately turns at the rate of 2,000 revolutions to the minute. As it revolves the four diamonds set in the adjacent frame are gradually polished by means of the friction produced on their surface by the particles of diamond dust still adhering to the oil into which they had been previously dipped.

Only one portion of a diamond can be polished at once, and consequently when this part has been dealt with, the stone has to be resoldered, so that another portion of its surface may be subjected to the friction of the wheel. This process of resoldering takes place about twenty times in the case of every brilliant before it can be considered to be thoroughly polished and to have acquired all the necessary fifty-eight "sides." The "rose" diamond, with its smaller complement of twenty-four "sides," needs to be resoldered only about six times.

Many celebrated diamonds have been cut and polished in this factory, among them the "Victoria," weighing 400 carats; the "Mogul," 279 carats, and the "Regent of France," now in the Louvre. The great "Kohinoor" diamond was recut here, and although it lost half its weight in the process, its value has been more than doubled.

A MARKET REVIEW.

The following report on the diamond trade during the year 1906 has been made at my request by a representative of a local firm:

The past year may be called in general a good year for the diamond trade. In most cases the demand was much larger than the supply, and the price level was higher than the year previous. Especially small diamonds were in large demand and prices paid for them—particularly for the very small—reached a height which nobody could have imagined a few years ago. Notwithstanding these very high prices the demand kept up steadily during the whole year, and it may be expected that so long as the present fashion of jewelry, the designs of which are dictated to the whole world by Paris artists, does not change, and in which a lot of small diamonds are necessary, the prices of small diamonds will still increase and sell readily.

Besides small melee up to 4-grainers were most in demand. Stones above 1 carat were neglected by American as well as by European buyers, although large pears were placed easily in Paris and Berlin. This year, as well as previous years, Americans formed the majority of the buyers in Amsterdam; but Europe, too, bought a great quantity of goods, which were often of a better quality and higher grade than those bought by Americans. It often occurred that several buyers could not fill their orders satisfactorily, as there were not enough desirable goods in the market, and therefore they only bought half and sometimes less than half of the quantity which they had the intention of buying when they came out.

The San Francisco disaster, which everybody thought would harm the trade very much, had no bad effect at all. On the contrary, the Pacific coast diamond trade flourished this year more than ever before. Prospects for the year 1907

and every year. In almost every country of the world welfare and prosperity in a measure of luxury are increasing fast and it can easily be understood that the augmentation of wealth creates and must in an increasing demand for jewelry, precious stones, and other articles of luxury.

Another factor added to stiffen the market. In the last quarter of 1906 the London Diamond Exchange renewed its contract with the De Beers Mining Company for the year with a condition of a gradual increase of prices every year and with a restricted output of \$26,532,169 annually. Notwithstanding all these good factors the manufacturers' profits were not very large, and many of them were disappointed. The cause of this must be found in the difficulty of separating the good kind of rough from the syndicate, as very often they had to wait for several months before they could obtain a sight of the shipments in London, and these were obliged to take whatever was offered them; the high wages which cause the diamond workmen to be classed among the most well-to-do workmen of our city, and the strong mutual competition.

As to the alarming news which came to us from South Africa, where it was said that industrial men were going to transfer the diamond industry to Johannesburg, this was very much exaggerated; but it is at any rate a warning to our manufacturers to be on their guard and to make themselves strong so that they will be able to work advantageously, notwithstanding a protected foreign industry.

PROPOSED TRANSFER OF CUTTING INDUSTRY.

During the last year the press both in South Africa and Europe has given considerable space to discussion of projects having in view the establishment of a diamond-polishing industry at Cape Town, Johannesburg, and other places. It is enough to say that such projects are not regarded seriously here. A South African exchange to hand states that 20,000 workmen will be employed in the prospective industry. People here ask where these workmen are to be sought. To-day Amsterdam factories employ about 9,000 workmen; Antwerp, 4,000; the Jura, 600; Switzerland plants, 200; German, 500; Paris, 200; New York, 300, and London, 25, or all together, according to Mr. Polak, an Amsterdam authority, about 15,000 people.

The establishment of a new industry like that of diamond cutting, splitting, and polishing is no slight undertaking. In 1903, after the enactment of the tariff of 1890, when the duty on polished diamonds was raised from 10 to 25 per cent ad valorem, a very considerable industry began to take root in the United States. In 1880 there were 29 factories, with a total capital of \$100,000, while the product was estimated at \$300,000; in 1890, 55 factories, with a capital of \$175,000, turning out a product of \$500,000. In the year 1900 there were 60 factories, with a capital of about \$3,000,000, a wage list of \$500,000 per year, material used, \$4,500,000, and a product amounting to \$5,750,000. Of this product \$5,500,000 was accredited to New York, \$150,000 to Illinois, \$50,000 to Massachusetts, \$8,500 to Pennsylvania, and the balance to other States.

AMERICAN LABOR-SAVING MECHANISMS.

The following statement is from an expert source:

Any suggestion of the diamond-cutting industry brings at once to the mind the importance of the Netherlands and France, especially the cities of Amsterdam and Paris. That the United States now takes a foremost place in this field is generally overlooked. Yet, through the ingenuity and enterprise of American cutters and the adoption of a number of new mechanical labor-saving implements and devices an industry that did not exist fifteen years ago now shows an output in excess of \$8,000,000. A mere enumeration of just a few of these new devices and methods, many of which originated in the United States and have since been adopted in Europe, is of interest. An octahedron,

or long stone, can now be sawed in two at the center by a revolving disk of sheet iron or phosphor bronze so that but 2 per cent of the weight of the crystal is lost; angles of octahedrons can be removed by nicking the stone at a given point, then by a sharp blow breaking off a piece, thereby saving both material and time formerly lost in polishing; stones and facets are now so grooved by a patented process that the brilliancy is greatly enhanced; a new mechanical device, the dop, for holding the diamond while being polished, does away with the formerly necessary frequent heatings, involving risk, to which the stones were subjected when secured in place by means of a fusible metal. A few figures illustrate the rapid growth of the industry from infancy to its present large proportions. The year 1896 showed 92 persons employed in lapidary work, a number which in five years had increased to 498; in ten years, from 1890 to 1900, the value of materials used rose from \$124,852 to \$4,055,765, and the value of the product increased from \$315,004 to \$5,786,281. Perhaps the most convincing figures of the progress of the diamond-cutting industry in the United States, however, are found in the relative importations of uncut and cut stones. In 1897 the importation of uncut diamonds was \$47,865; in 1905 it was \$10,390,917, an increase of over 2,100 per cent [it increased further to \$11,778,119 in 1906.—B. of M.]. In the same period the increase in the importation of cut stones was 778 per cent, or from \$1,937,944 to \$17,019,530 [advancing to the still more striking importation in 1906 of \$25,282,118 worth.—B. of M.]. In 1897 for every dollar of uncut stones imported there was an importation of \$40.50 of cut stones; by 1906 for every dollar's worth of uncut stones imported the cut-stone importation was a little over \$2.

WAGES AND PROFITS—SALES TO AMERICA.

Wages paid in the diamond industry at Amsterdam are estimated to have amounted to \$8,400,000 in 1905, and with mill hire, disk polishing, and profits of manufacturers, merchants, and brokers it is thought that about \$10,400,000 of foreign money was brought into the city by the industry in 1905.

The diamond exports from Amsterdam to the United States (by fiscal years) in 1862 amounted to \$2,080; in 1863, \$4,972; in 1864, \$1,690; in 1872, \$520, all Brazilian stones. In 1874 Cape of Good Hope diamonds appeared in the list of exports, which amounted in that year to \$32,740. From 1882 on, the exports of diamonds to the United States attained prominence. In 1887 the value was \$1,797,611; in 1890, \$3,791,196; in 1905, \$9,627,081, and in 1906, \$10,758,767, all of South African origin. These figures cover the amounts of diamonds regularly invoiced according to law at this consulate. What the value is of diamonds bought here by the 30,000 American tourists who visit Amsterdam annually and by other sojourners who take them to the United States, and what the value is of smuggled goods generally can not be stated. The sensational figures that appear from time to time respecting the amount of goods smuggled are, I believe, exaggerated, but that the amount reaches very high figures is the opinion of everybody in the legitimate trade who "ship goods straight."

Figures given above are for years ending June 30. For the calendar year just closed the amount of diamonds invoiced at this office was \$12,435,162, far and away the largest shipments ever made from Amsterdam to the United States.

[Photographs showing workers engaged in diamond splitting, cutting, and polishing, and a colored chart of precious stones, forwarded by the consul, are filed for inspection at the Bureau of Manufactures.]

DIAMOND MINING.

AFRICA FURNISHES THE LARGEST OUTPUT—PRICES AND PROFITS.

Supplementing his report on the diamond-cutting industry of Amsterdam, Consul Frank D. Hill reviews the sources of supply, giving the past and probable future output of South African diamond fields, of which he forwards to the Bureau of Manufactures a map showing the location of the mines. He states that the following respecting the production of diamonds is taken from a source believed to be trustworthy:

Volcanic pipes in which diamonds are found are not peculiar to South Africa; similar formations have been discovered in New Zealand and quite recently in Connecticut; but it is only in South Africa that the diamond deposits have attained any economic importance. The so-called pipes in which the diamonds are found may be considered to be the material filling the craters of extinct mud volcanoes. This is not a very scientific description, but it will perhaps give, in a few words, an idea of the nature of the deposits.

For a long time it was supposed that diamond mines were only to be found in the neighborhood of Kimberley and in the district farther to the east, in the Orange River Colony, where the Jagersfontein and Koffyfontein pipes are situated. Within the last few years, however, diamond pipes have been found in many other parts of the country, and among them may be mentioned the Premier, Montrose, and Schuller pipes near Pretoria, in the Transvaal; the Lace and New Randfontein Reefs pipes near Kroonstad, and the Victor pipe near Boshof, in the Orange River Colony; while the Peizer, New Weltevrede, and Frank Smith have been discovered to the northwest of Kimberley.

VALUE OF THE DIAMONDS.

The price of diamonds has been controlled for some years by a powerful combination of diamond merchants in London. No difficulty has been found in maintaining the price, and since the Boer war, more particularly, the value per carat has been steadily rising. The question as to the possibility of keeping up the price of diamonds with a largely increased supply in prospect is one that is frequently asked, and leading authorities are agreed that at least twice the present annual supply could be absorbed without affecting the price per carat. It is considered, however, that as regards only the better class stones there will always be a demand. The value per carat of the diamonds recovered from the principal producing mines according to their latest reports is: De Beers and Kimberley, \$12.68; Wesselton, \$8.86; Bultfontein, \$8.38; Dutoitspan, \$16.78; Jagersfontein, \$13.86, and Premier, \$5.64.

The four first named mines all belong to De Beers Consolidated Mines (Limited). These figures are merely averages, and do not imply that there are no good stones found in the Premier mine, or no poor ones, say, at Dutoitspan. Every mine produces a certain amount of rubbish worth about \$2.16 a carat, and the percentage of these poor stones found determines the average value of the yield.

Thus at the last Premier meeting one of the directors pointed out that 75 per cent of the total money value produced was represented by diamonds worth \$12.60 per carat and the balance of 25 per cent was made up of diamonds worth \$2.16 per carat.

Similar variations in value occur in the stones found in all diamond mines. As showing the gradual increase in the average price realized per carat during the last twenty years, the following figures, taken from the report of the New Jagersfontein mine, may be of interest: 1887, \$6.80; 1891, \$8.92; 1895, \$7.46; 1899, \$8.28; 1903, \$13, and 1905, \$13.88. Since the issue of the report for 1905 the average price per carat has risen a further 5 per cent.

OUTPUT OF DIAMONDS.

According to their annual report for 1890, the combined output from the De Beers mines and New Jagersfontein was about 1,550,000 carats, while for the corresponding period ending in 1899 the two companies together produced some 3,130,000 carats. At the outbreak of the Boer war, however, the diamond-mining industry became completely disorganized, and the mines have apparently hardly yet returned to the 1899 rate of production. Thus, according to the latest report of De Beers and New Jagersfontein issued for 1905, it appears that the total number of carats won by these companies for the year was about 2,166,000 carats, or a decrease of 960,000 carats as compared with the figures for 1899. It should be understood that the figures are merely approximate, as it is impossible to find from the De Beers report for 1905 the number of carats actually recovered.

As a set-off to the shortage in the output of these older companies, the Premier mine during 1905 won 845,652 carats, so that the total output from South Africa is at present very nearly what it was at the period just before the war. The other South African producers have been of little importance, but there are at least three mines which are expected one day to turn out large quantities of diamonds at a handsome profit. These are the Lace, the Roberts Victor, and the New Randfontein Reefs mines. Of these the Lace mine has already produced over 60,000 carats, is fully equipped with a washing plant, and has some 750,000 loads of blue ground on the floors. It will very shortly enter the regular producing stage, and a grade of from 14 to 20 carats per 100 loads washed is anticipated. The Roberts Victor and the New Randfontein Reefs are little more than prospecting ventures at present. In each case, however, a pipe has been found, and preliminary trials with a small washing plant point to a return of rather over 20 carats to the 100 loads, the average quality of the stones found being very satisfactory.

FUTURE OUTPUT—DEVELOPMENT IN WORKING.

Any estimate of the probable future annual production of diamonds must necessarily be a very rough one, but it is apparent that there will be a large increase, even if no further new discoveries are made. By the year 1908 it may be assumed that the new mines discovered will be equipped and will have become regular producers. The probable increase in the output of diamonds for that year compared with the 1905 returns may be estimated as follows: The returns from De Beers and Jagersfontein will be assumed to be the

same as in 1905. The increase in number of carats won is figured at 1,200,000 for the Premier mine, 80,000 for Lace mine, 100,000 for Roberts Victor mine, and 200,000 for the New Randfontein Reefs mine, or a total increase of 1,580,000 carats.

The Roberts Victor having probably a much smaller pipe than the New Randfontein Reefs, a smaller plant has been assumed for this mine, with a correspondingly smaller annual output. It will be understood that this estimate is a very rough one, but in all cases the figures are founded on a conservative basis. No account has been taken of the many low-grade mines that are being worked in the country but whose output is not of sufficient importance to affect the total in any serious way. Among these may be mentioned the Koffyfontein, Kamfersdam, New Weltevrede, Frank Smith, and Peizer mines.

A VERY VALUABLE MINE.

The Premier is by far the largest and most valuable individual diamond mine ever found in South Africa; and it is probably not an exaggeration to say that it is one of the most valuable mines of any kind ever discovered in the world. It is estimated that when its full plant is at work it will make profit at the rate of \$9,648,000 a year, the life of the mine on this basis being well over fifty years. Considerable interest will be taken in the attempt which is to be made at the Schuller mine to treat blue ground in tube mills.

The diamondiferous ground at this mine will not decompose when subjected to atmospheric agencies, so that it is necessary to disintegrate it by mechanical means. If crushers or rolls be used for this purpose the diamonds, which are brittle, although extremely hard, are broken as well as the matrix, but in the grinding action which takes place in a tube mill it is thought that the diamonds will be separated from their inclosing minerals without being fractured. Experiments carried out on a small scale point to the feasibility of this arrangement, and if further experiments prove successful, the adoption of tube mills will revolutionize the treatment of blue ground in diamond mines by doing away with the expensive and tedious process of flooring, which adds both to the cost and the capital expenditure.

According to the new Transvaal diamond law, the government has a right to take up to 60 per cent of the profits of any diamond mines found in the colony, after allowing for all capital expenditure necessary to equip the mine. A law on the same lines has been promulgated in the Orange River Colony, although in this colony the maximum share that the government can claim is 40 instead of 60 per cent. It is scarcely necessary to repeat that nearly all diamonds manufactured in Amsterdam are of South African origin, and are sold under contract by the De Beers Company to the syndicate in London, Amsterdam and all others engaged in manufacturing diamonds being compelled to buy their "rough" from the syndicate in London.

PRICES ADVANCED—YIELD AND PROFITS.

On June 30 last a new contract was entered into between the De Beers people and the syndicate for five years, by which prices of the various series were raised 20 per cent, the syndicate paying for "rough" diamonds now an average price of \$16.80. The average

value per carat of the yield of the several mines last year was as follows: De Beers and Kimberley, \$14.86; Wesseltion, \$10.50; Bultfontein, \$10.30; Dutoitspan, \$19.42. At a recent meeting the chairman of the De Beers mines said:

Turning to the accounts it will be seen that the diamonds produced realized \$27,051,627, as against \$23,108,919 for the previous year, an increase of \$3,882,708, this enhanced output being readily disposed of by the syndicate to whom we sell our production. The demand for diamonds is increasing to such an extent that we have been compelled to largely extend our washing operations in order to cope with the requirements of the industry, and I should not be surprised if the sales for the year ending June 30 next largely exceed the quantity sold during our last financial year. This is not the result of any spurt in the diamond market, but the demand has been strong for the last seven years and appears to be still visibly increasing. The demand is so great that despite the growth of the output our diamonds realized a much higher price per carat last year than during the financial year ended June 30, 1905, America again being our best customer. It was decided two years ago to accumulate sufficient blue on the floors to give the benefit of two wet seasons before being treated. Two years ago there were less than 4,000,000 loads of blue on our floors. To-day our stock of blue amounts to over 8,300,000 loads.

LARGE DIVIDENDS—MOVING OFFICES.

The profitable nature of this great natural monopoly is shown by the fact that a semiannual dividend of 20 per cent has just been declared on the preferred shares of the De Beers mines and a dividend of 35 per cent on the deferred shares, the former less, the latter free of income tax. The report of the Premier mine (Transvaal), which has come into marked notice of late as a producer, contains interesting data. Their production for the year ended October, 1905, was 845,652 carats. The great event of the year was the finding of the great "Cultinan," now owned in New York, of 3,024½ carats. The company declared two dividends at their annual meeting of 125 per cent on the common shares and one of 400 per cent on the deferred shares.

Such enormous dividends out of the 40 per cent of the profits left after paying the Transvaal government its share of 60 per cent of the profits according to law, and payment of working expenses, providing equipment, etc., show the remarkable position of the company. Their output for the twelve months ending during the fiscal year to the end of October last was 899,746 carats, or an increase of 54,094 carats over the previous year. This is a very important addition to the world's diamond supply. While the much greater De Beers Company paid \$450,000 to the Cape government last year as direct taxation or participation in profits, the Premier Company paid the Transvaal government \$1,787,075 during the same period. According to an article by an American authority, the De Beers mines had produced up to May 1, 1903, over \$500,000,000 of uncut diamonds, and they are now said to supply 95 per cent of the world's supply.

On the somewhat startling idea of moving the selling offices of the De Beers Consolidated Mines (Limited) from London to New York in order to escape the English income tax (a double tax of about \$500,000, inasmuch as the Cape government imposes a \$500,000 income tax) and back taxes of \$3,500,000, I prefer to quote the words of the chairman at a late meeting. The item of \$2,170,800 expended in the last two years, as stated, would be a large item for our makers of mining machinery and supplies. I have, however, always had an

impression that machinery used there was that of an American firm, supplied through their London branch. The chairman said:

The real business of the company—that of producing diamonds from the soil—is absolutely confided to Kimberley. If the London office were closed to-morrow, it might inconvenience the English and continental shareholders and would certainly decrease the company's purchases of mining machinery and supplies in England, which amounted to \$2,170,800 for the two years ended June 30 last, but it would not make the slightest difference to our mining operations. Not a load less blue ground would be hauled or washed, the production of diamonds for the year would not be decreased by one carat, nor would the aggregate profit of the company suffer to the extent of one farthing.

The London office, which is a source of expense to the company, is of some service to the English and continental shareholders, and is of great importance to English manufacturers and merchants; but it would be too expensive a luxury to prolong its existence at a cost of over \$482,000 per annum to the shareholders. Considering that America purchases more than half our diamond output, as against one-sixth consumed in England, it would be quite feasible and not bad business for the company to move the London office to New York.

The matter was left over until after the colonial conference in April at London.

GEMS AND TIMEPIECES IN MEXICO.

AMERICA'S SHARE OF THE IMPORTS—LEADS IN SALE OF CLOCKS.

Consul-General P. C. Hanna writes from Monterey that in nearly all Mexican homes an American clock keeps the time, and in the tower of cathedrals and other public buildings the big illuminated clock is often of American manufacture. He continues:

There are a few importations of clocks from Switzerland and Germany, but they are rarities. Occasionally one sees here a Dutch cuckoo clock, but it has been made either in Germany or the United States. In watches the trade in Monterey and northern Mexico generally is almost evenly divided between the United States and Switzerland, but American watches appear to be gaining in reputation and favor. Formerly Switzerland had the lead, but the American watch-makers have pushed their business in this country, and the best American watches now have the preference. At the present time, Switzerland seems to be making an effort to regain lost ground, and some particular makes of Swiss watches are being extensively advertised in order to make them as familiar to the public as are some of the best makes of American watches. As to the best class of watches, dealers find that there is very little difference in prices, after the cost of shipment and duties are paid, between the American article and that brought from Switzerland. Much depends on reputation, and American dealers are sending their representatives here to keep their wares well advertised, and also are sending to this country a quality of goods that sustains the reputations of the American manufacturers.

In the very cheapest of watches, Germany does some business in northern Mexico, but still the manufacturers of that country are not ahead of those of the United States in the making of a cheap but serviceable watch. Switzerland, with cheap but skilled labor, appears to undersell the United States in what might be called the medium grade of watches, and also does an almost exclusive business in complicated pieces, such as stop watches and repeaters.

GOLD AND SILVER ARTICLES AND GEMS.

The United States makes the best offer to the Mexican trade in rolled gold chains, pins, buttons, etc., but in solid gold articles Germany appears able to make better prices than the United States, and at the present time has almost the entire trade in this line of goods in Monterey. In diamond rings and diamond settings generally Germany has the trade of this part of Mexico. Formerly diamonds in this country, on account of the difference in duty charges, were cheaper than in the United States, but at present this difference has almost faded away, and the prices here and in the United States appear about the same.

Germany is also doing the greater part of the business in solid silverware. Formerly this business belonged almost exclusively to France. The two things that count in artistic silver productions are design and price. Recently it appears Germany has been able to equal France in design, and being able to undersell the latter country, has almost driven it out of this market. But as competitors of Germany the Americans have still more recently entered the market with a strong hand. American manufacturers of solid silverware are now gaining ground, and a certain dealer acknowledges that American manufacturers are employing the best artists in the making of such wares, or at least they are meeting the tastes of the best people in this country more successfully than are the European manufacturers.

Mexico has an extensive foreign trade in opals. These stones are produced in the southern part of the Republic, and Monterey has only a local trade in them. They are dressed or polished in Mexico, but as yet little has been done in the way of mounting them and they are generally sold in their loose state to foreign dealers. [The names of the principal dealers in watches, clocks, jewelry, and silverware in Monterey are filed for reference at the Bureau of Manufactures.]

BRITISH HALL-MARKING.

SETTLEMENT OF THE WATCH-CASE QUESTION BY PARLIAMENT.

Consul Albert Halstead, of Birmingham, advises that foreign watches imported into the United Kingdom before July are to be exempt from the requirements of being hall-marked in the United Kingdom, by a bill introduced into the House of Commons which he understands has the Government's support and will therefore become a law. Concerning this he says:

This bill is intended to settle the question of hall-marking, and, I am informed, is a result of conferences between the British foreign office, the British Board of Trade, and British manufacturers of watch cases. I reported some time ago that the court of appeal of the British supreme court of judicature had decided that the cases of complete watches must be hall-marked to show their fineness. Negotiations were entered into later by Switzerland with the United Kingdom with the view to obtaining recognition of the Swiss hall-

mark, concessions being promised to British industries. It was also proposed that the Swiss marking of articles of precious metals should be made to conform with the regulations governing hall-marking in the United Kingdom. Now, it is understood, this Swiss proposition is not to be entertained, but after July 1 all watch cases and other things that can be classified as plate are to be hall-marked, the decision of the court of appeal being accepted and not appealed. The object in permitting the entry of foreign watch cases up to July 1 without the requirement of hall-marking is to avoid imposing a hardship upon the holders of stock of foreign watches that can not be brought into conformity with the hall-marking condition.

FOREIGN TRADE COMPLAINT.

PREJUDICE AGAINST METHODS EMPLOYED BY AMERICAN EXPORTERS.

Consul R. E. Mansfield, of Lucerne, Switzerland, reports on American methods of soliciting trade in foreign countries as follows:

Comments made in reports from this consulate on the practice indulged in by many American manufacturers and exporters of sending catalogues printed in English to prospective customers in foreign countries may be emphasized by a recent incident in this office. This consulate supplied an American manufacturer with a list of names of importers in the district. The firms whose names were given received by mail catalogues descriptive of the articles produced by the manufacturer. On each package of the printed matter sent, which was of no value to the persons receiving it, there was penalty postage amounting to \$1.06. The circumstance, instead of encouraging business or even interesting the prospective purchaser, created a bad impression upon the mind of the importer, adding to the prejudice existing already against the methods employed by American exporters in soliciting foreign trade.

This incident may be considered of minor importance to American exporters, but when taken into consideration with other circumstances of a similar character, and the further fact that continental business rivals in every branch of trade and industry are keenly alive to the importance of preventing an American invasion of European markets, it is worthy of serious thought. There exists a feeling of universal opposition to American commerce in Europe; there is combined opposition, and every pretext is seized upon by manufacturers to prejudice buyers against trans-Atlantic trade. Methods of soliciting, unsatisfactory packing, differences in the systems of weights and measures, and short-time credits are all used as arguments with purchasers to influence them against placing orders with American houses. European merchants are conservative, and in considering the question of foreign commerce the customs prevailing in the country and the class of competition to be met must be taken into account.

TRANSPORTATION.

WORLD'S STEAMSHIP LINES.

BRAZIL.

AMERICAN EXPORTERS HAVE INADEQUATE FREIGHT FACILITIES.

In transmitting a list of vessels of over 14 knots speed sailing between Rio de Janeiro and several European ports during the six months ending June 30, 1906, Consul-General G. E. Anderson writes as follows:

American business men have commenced to appreciate the fact that the shipping connections between Europe and South America are so much superior to such connections between the United States and South America that the business men of Europe, the exporters and producers generally, have a material advantage in South American trade over the exporters of the United States. Agitation in connection with this state of things is bringing to the front a number of facts which have a strong bearing upon international commercial relations, and most of the facts tend strongly to support the general proposition that American exporters are suffering from a disadvantage which materially affects their sales abroad, a disadvantage which merits serious attention as a business proposition. Shipping between two nations as a rule simply depends upon the volume of trade between two nations. It is the result of the man rather than the cause of trade. A ship can not carry freight until there is freight to carry, and, as a rule, goods are sold before they are shipped, or, at least, a commission trade permanent enough to insure their being sold under favorable conditions exists before shipment. Under ordinary circumstances the transportation facilities between two nations depend upon trade, and when trade increases the demand for shipping which attends it will result in the meeting of that demand.

IMPROVEMENT OF SERVICE FROM EUROPE.

It should be noted, in connection with the service now enjoyed between Brazil and Europe, that there is constant betterment, and the number of fast vessels plying between these two portions of the world is constantly increasing. Two British companies are replacing their small and slower vessels by large, fast vessels as rapidly as they can conveniently be built, increasing both their aggregate tonnage and their average speed. It is understood that the French company, now affording a very fair service between France and Brazilian ports, is to increase its fleet of vessels. The Hamburg-America line's recent increase in its capital to the extent of \$4,760,000 is said to be due to a considerable extent to the necessity of building new ships for its European-South-American line, which are to come under the class of

fast vessels. It is also generally understood that this line's new service between Genoa and Brazilian and Argentine ports is to have faster vessels. The fact that there is an opening for this new line at all, in view of present service and in view of the fact that American-Brazilian trade shows a greater increase than the trade of Brazil with Europe, can not be without significance. These great companies are paying satisfactory dividends.

That a line between Brazilian and American ports would be profitable is, of course, the crux of the entire situation. With such tonnage as is now moving between Brazil and the United States in an unsatisfactory service, it is difficult to have any other opinion than that a modern, improved, and more satisfactory service would get the business and pay. While the cost of ships of modern equipment and proper accommodations would be greater than the value of those now in the service, and the earnings therefore would necessarily be larger if the service is to be profitable, it is quite probable that there would be savings in the operation of a more modern line which are not possible with vessels of the sort now furnishing the service, so that the ultimate results could not be worse, and probably would be much better, from a financial standpoint.

TRADE DISADVANTAGES—SHIP TONNAGE.

That the trade of the United States suffers a disadvantage under present conditions is evident. Not only do our manufacturers shipping goods to South American ports lack the prompt and frequent service had by the manufacturers of Europe for the shipment of their goods, but they lack facilities for sending representatives to Brazil at a minimum of trouble and expense.

The number of vessels of over 14 knots speed sailing between Rio de Janeiro and the several European ports during the six months ended June, 1906, was 54, with a total registered gross tonnage of 300,857. The number of ships sailing from European ports to Rio de Janeiro during this time was 46, with a total tonnage of 261,645. During this period no ship of over 14 knots speed came from an American to a Brazilian port, or vice versa. Thirty-five ships of a tonnage averaging less than those engaged in the European trade arrived at Rio de Janeiro from ports of the United States and 70 ships departed therefor.

NICARAGUA.

NEW LINE FROM NEW YORK TO SAN JUAN.

Consul F. M. Ryder advises that the Hamburg-American Line (Atlas Service) has inaugurated a regular monthly service between New York and San Juan del Norte. Concerning this new line to Nicaragua he says:

It is intended that the new 3,500-ton steamer Sibiria, which leaves New York for Jamaica and Colon every four weeks, will call at this port on the trip between Cartagena and Port Limon. The first regular call was made May 3, and evidently the steamer was well patronized, as there were 26 cabin and 95 steerage passengers, and 30 laborers in addition to the crew—in all, 212 persons on board. The trip to this port consumes about thirteen days. If notice of these sailings was published by the post-office in New York it would afford us an additional and direct mail from the United States.

CANADA.

SUBSIDY FOR LINE FROM MONTREAL TO ENGLAND TO CONTINUE.

Consul-General Church Howe, of Montreal, states that it has been officially announced that the Canadian government intends to continue the subsidy granted last year to the Dominion Line of steamships for a Saturday mail service from Montreal to Great Britain. The Montreal exporters claim that by sending their bills of lading and invoices by a direct Canadian line on Saturday they do not suffer the delay of four or five days occasioned by sending their papers by the New York route. In 1906 the sum of \$1,227,560 was expended by the Canadian government for mail subsidies and steamship subventions.

ENGLAND.

FAST SUBSIDIZED STEAMSHIP SERVICE PROPOSED VIA CANADA.

Consul-General W. R. Holloway reports that the Halifax Chronicle has a special from Ottawa concerning the proposed fast all-British mail service between Great Britain and Australasia, which special says:

Hon. Clifford Sifton, who has returned to Ottawa after three months' absence in England, is sanguine of the speedy realization of the proposed Imperial scheme for a new fast service between England and Australia via Canada. A 24 or 25 knot Atlantic service is to be given by ocean liners second to none in the world. The transcontinental service from Halifax to Vancouver is to be shortened, and on the Pacific an 18-knot service is to be established from Canada to Australia and New Zealand and also Japan and China. He said:

"The scheme presented by Sir Wilfrid Laurier to the British Government and the Colonial conference embraced the idea of a 24 or 25 knot service from a British to a Canadian port, a service to be given with vessels equal in equipment to any at present in existence. The project further involves an improvement of the railway service in Canada to such an extent as is necessary to make the shortest possible time across the continent from port to port. It further contemplates the improvement of the existing service on the Pacific by the establishment of an 18-knot service from Vancouver to Australia and New Zealand and a similarly fast service from Vancouver to Japan and China. The service from Vancouver to Japan is at present about 13 knots, and it is contemplated to make a very substantial difference in time.

GOVERNMENT SUPPORT.

"The representatives of Australia and New Zealand strongly supported the proposition and intimated that their governments would be prepared to cooperate. So far as the Atlantic service is concerned, it would involve the establishment of a new and independent steamship company, which must be independent of all railway companies and would therefore give equal facilities of service to passengers from all railway lines. It is believed that the British Government views the project favorably. It could not be expected that so important a scheme, involving so large an amount of money could be decided at once. Sir Wilfrid, however, anticipates a favorable decision from the British Government in regard to its cooperation, and hopes that such decision may be communicated to him before he returns to Canada.

"There can be no doubt that if this proposition is carried into effect it will be of vast benefit to the operating parties, and especially to the Dominion of Canada. There will not be a single province from Halifax to Vancouver that will not be largely benefited. It would place Canada on the main commercial highway of the world and have the effect of introducing new capital and new industries, the extent of which at the present time it is difficult to foresee. Those who are in a position to observe the trend of events at the present moment are of the opinion that there has been no time within the last ten

years so opportune for carrying out a plan of this nature. The results of my observations lead me to the conclusion that if a persistent and determined effort were made a successful conclusion could be reached within a reasonably short time."

FRANCE.

NEW LINES FROM BORDEAUX TO AMERICA.

Consul D. I. Murphy, of Bordeaux, reports that preparations are now being made by the Compagnie Générale Transatlantique for the establishment of a new line of steamships between Dunkerque, Bordeaux, and New York, the following being the plans:

Two sister ships of over 5,500 tons each, intended primarily for third-class passengers and freight, are now under construction. I am advised that the question of carrying second-class passengers is now under consideration and will be decided shortly. It is the intention, in case the new ships are not completed by the coming fall, to put on two vessels the company has now in use on other lines. It has also been determined by the Compagnie Générale Transatlantique to establish a line of steamships to New Orleans, but while the sailing place in France has not yet been fixed, it is probable that Bordeaux will be a calling port.

JAPAN.

INCREASED JAPANESE SUBSIDY IMPROVES TRAFFIC FACILITIES.

Consul J. H. Arnold reports from Tamsui that since the promulgation of the navigation encouragement act by Japan in March, 1896, the civil administration in Formosa has made provision in each annual budget for subsidies to the Japanese merchant marine engaged in the Formosan trade. He continues:

The annual budget for the fiscal year beginning April 1, 1907, contains a subsidy of \$108,215 for the merchant marine between Japan and Formosa; \$73,405 for Formosa coastwise navigation; \$88,745 for sailings between Formosa and China, and \$87,299 for China coast navigation, making a total of \$357,664. The bulk of these subsidies goes to one company, the Osaka Shosen Kaisha. The sailing schedules for 1907 differ from those for 1906 in some respects.

In addition to changes which were ordered by the communications bureau of the Formosan government, the Osaka Shosen Kaisha voluntarily adds two steamers to its Japan-Formosa lines, providing two extra trips each month between Kobe and Keelung and the same number between Yokohama and Takao. This means that the Japan mails will reach the island upon a regular three or five days' schedule.

The freight tariffs of the Osaka Shosen Kaisha lines in force in April were in gold per ton: Nagasaki and Moji to Keelung, \$2.90; to Takao-Anping, \$5.25; Yokohama to these points, \$3.75 and \$6.25. Amoy and Swatow to Tamsui or Takao, \$2.48; Hongkong to either of these points, \$4.75. Compared with the schedule in force two years ago, the rates between Formosa and Japan vary but little, while those between Formosa and the China coast show a slight increase, especially so when it is considered that the Mexican dollar has increased from 0.93 yen in February, 1905, to 1.10 yen in April, 1907.

A table of clearances of vessels participating in the Formosan carrying trade for the two years 1906 and 1897 shows, in a measure at least, the beneficent effects of the Formosan subsidies to the Japanese merchant marine. They show the Japanese tonnage in the island's trade with Japan to have greatly increased. The British carrying trade during the same period suffered a heavy decline. Both the Japanese and Chinese junk trade show a considerable falling off during the ten years in question.

CHINA.

NEW SUBSIDIZED STEAMSHIP SERVICE ON YANGTSE RIVER.

Consul-General William Martin writes from Hankow, China, that the subsidy for the steamship service on the Yangtse River and tributaries having been confirmed by the Imperial Diet, the Japan-China Steamship Company, a combine of four old companies, has been formed, with a capital of \$4,050,000. The new company contemplates increasing its capital to \$6,000,000. One-fifth of the shares may be allotted to Chinese subscribers. The company opened business on April 1, and is to receive an annual subsidy from the Government amounting to \$400,000.

SAMOA.

SERIOUS HANDICAP TO TRADE WITH THE UNITED STATES.

Consul George Heimrod writes from Apia that the commercial relations between Samoa and the United States show a lack of shipping facilities that place a serious handicap upon the development of trade. He adds:

During 1906 the steamers of the Oceanic Steamship Company, carrying mail, freight, and passengers between San Francisco and Pacific ports, were unable to maintain a regular service on this route. This was partly due to the San Francisco catastrophe, but principally owing to the frequent repairs of the steamers. In contrast to these unfavorable conditions, the Union Steamship Company, of Sydney, Australia, has placed larger and more commodious steamers on their route. Two steamers of this line, with good passenger accommodations, make monthly round trips, sailing from Auckland, New Zealand, and Sydney, Australia, stopping at Fiji, Samoa, and Tonga, making connections with the Vancouver line plying between Vancouver, Honolulu, and Fiji. There are also a number of sailing vessels making trips between Apia, Auckland, and Sydney, carrying merchandise, and returning with copra from Apia. Only one sailing vessel, with a cargo of lumber and merchandise, arrived last year at this port from the United States, and one yacht, chartered by the Carnegie Institute for scientific observations. The other sailing vessels flying the American flag entering the harbor of Apia were small schooners plying between Upolu and Tutuila. It is evident that as long as American shipping facilities are not improved American manufacturers have no opportunity to secure very much of the trade of Samoa.

The number of merchant vessels that entered Apia in 1906 was 104, of 55,562 tons, against 112 vessels, of 52,029 tons, in 1905. The num-

ber of vessels cleared was 109, of 56,773 tons, against 108 vessels, of 48,786 tons, during the previous year. There were also two war ships entered, with a total displacement of 2,370.

AUSTRALIA.

AN IMPROVED SERVICE WITH NEW YORK.

A recent movement in shipping circles of considerable importance to American manufacturers and importers is reported by Consul-General J. P. Bray, of Melbourne, as follows:

The new United Tyser Line, an organization comprising the Tyser Line, the German-Hansa Steamship Company, and the German Australian Steamship Company, will dispatch steamers (whether full or otherwise) on advertised dates every three weeks from New York for the following Australian ports, viz, Freemantle, Adelaide, Melbourne, Sydney, and Brisbane, and to ports in New Zealand. The first vessel to inaugurate the service was to be the Hansa steamer Trautenfels on April 20 for Freemantle, Adelaide, Melbourne, Sydney, and Brisbane, followed by the Hawke's Bay on May 11 for Melbourne and Sydney, and Auckland, Wellington, Lyttleton, and Port Chalmers, in New Zealand; then by the Itzehoe on June 1 for Australian ports, and thereafter by vessels and dates to be advertised.

RAILWAY EQUIPMENT.

CHILE.

PROSPECTS FOR A RESUMPTION OF AMERICAN TRADE.

Referring to a request for information from an American locomotive company in regard to the opening in Chile for the sale of American locomotives and other material, Minister John Hicks, of Santiago, reports that Chile has for many years purchased its material in the United States until quite recently. Concerning the change he writes:

Several things have occurred to transfer the current of trade from the United States to Europe. One factor is that the number of Americans in Chile to-day is much less than it was fifty years ago. There are only two American wholesale houses, while the Germans and English have 30 or 40. As to banks, the English, Germans, Italians, Spanish, and French are said to control the business, outside of that done by the Chileans. The bulk of the banking business is also done by the English and Germans. In Santiago there are three German banks, but there is not one American bank in Chile.

As to steamship accommodations, the transportation business is done almost entirely by the English and Germans. There are no American lines, although two American houses are agents and managers of competing lines from New York, whose steamers fly the British flag. Two American locomotive manufacturers are represented in Chile by branch houses. Assurances have been received from Chilean officials that in the next railroad construction or purchase of materials tenders will be called for and an opportunity will be given

for American bidders to compete. It will, however, be difficult to improve the present situation until better steamship transportation is secured between the United States and Chile, as well as better banking facilities and a better understanding of the situation by American manufacturers.

NORTH BORNEO.

SURVEYOR'S REPORT SHOWS THAT MUCH MATERIAL IS NEEDED.

Supplemental to his previous report on the railroad to be constructed from Marudu Bay to Sandakan, British North Borneo, Consul Lester Maynard now writes:

The Marudu-Sandakan survey party arrived in Sandakan on April 1, 1907, after completing a flying survey between Tanjong Batu, on the Marudu Bay, and Sandakan, having covered a distance of 230 miles in seventy-five days. The surveyors report extremely difficult country for railroad construction, having encountered many swamps and rivers. At the lowest estimate 200 miles of rails will be necessary and over 2,500 feet of bridging. For this road 60-pound rails will be needed. In all probability Messrs. Paulding & Co., of London, will award the contracts for the permanent way, rolling stock, and iron superstructure. It will be necessary to have at least two more surveys before work on the road can be started.

MEXICO.

RAILWAYS ADOPTING FUEL OIL.

Consul-General Philip C. Hanna writes from Monterey, inclosing a newspaper article which states that fuel oil is coming into general use among the railroads in Mexico. The Torreon Star says:

The Mexican Central Railway is now taking 4,000 barrels of fuel oil daily from the Mexican Petroleum Company. The cost is \$1.10 a barrel, or a total of \$4,400 daily. The Mexican Central is steadily increasing the number of oil-burning engines in service, and within the next few months the road will be taking much more fuel oil than at present. All new engines purchased by the Mexican Central are equipped for burning oil, and engines are being constantly remodeled in the general shops at Aguascalientes. Oil-burning engines will be soon placed in service on the Chihuahua and Guadalajara divisions of the Central. Storage tanks are being prepared at Guadalajara, Yurecuaro, Zapotlan, and La Vega, and metal delivery tanks are now being erected. Some oil has been unloaded at Guadalajara and Zacatecas.

New Company to Build Freight Cars in Ontario.

Consul Harry A. Conant, of Windsor, reports that a company has been organized at St. Thomas, Ontario, with a capital of \$400,000, to manufacture freight cars, the output to be five standard cars a day, and that the city will be asked to grant a \$50,000 bonus and a fixed rate of taxation for ten years.

MACHINERY.

AGRICULTURAL IMPLEMENTS.

CHINA.

PROSPECTIVE MARKET FOR AMERICAN MAKES IN MANCHURIA.

Vice-Consul A. W. Pontius, of Newchwang, reporting on the prospects of introducing agricultural machinery in northern China, says:

Manchuria should within a short time be a very good market for nearly all kinds of modern agricultural machinery and appliances, as the northern part of the country is very fertile and embodies exceedingly large tracts of as rich agricultural land as can be found in any part of the world. This land up to the present time has only been cultivated in the old crude Chinese way, and there are many large areas which are still in a virgin condition. Settlers are flocking in from other and more densely populated parts of China; but until modern implements are introduced to the farmers' notice, by samples and practical demonstration of their utility, the old conditions will continue to prevail.

As the land in this immediate vicinity is marshy and practically unfit for farming purposes, it would be difficult for the merchants here to get into touch with the farmers, even if samples of agricultural machinery were available. For that reason it would not pay the Newchwang merchant to take the matter up on his own account, as to do so he would be obliged to take the samples some hundreds of miles upcountry and give practical demonstrations, which would only be possible by obtaining a special expert for the purpose.

If American manufacturers want the business, the advisability is suggested of a number of the leading suppliers combining and sending out a good line of their samples, together with a practical expert who could take them up into the farming country and give practical demonstrations, so as to enable the farmers to see exactly what each machine could do. If this were done, the farmers would quickly appreciate the advantages to be gained by adopting modern appliances and would not hesitate about purchasing, and in this way a very important and growing trade would be opened up.

NO PREJUDICES AGAINST AMERICAN GOODS.

The northern Chinese have no prejudices against American manufactures, but they are firm believers in a "chop"—that is, if they adopt or get into the way of using a certain brand of anything and it suits their purpose, they will continue to use that particular chop or brand so long as they can get it in preference to any other, and it is difficult to get them to change even to an improved article, for they know what the article they have used can do and are sure that it will satisfy their requirements, while with any other chop or brand there is an element of uncertainty, and they prefer to be sure rather

than run any risk of being sorry later on. This makes it obvious that the manufacturers who first get their goods introduced will reap the greatest benefit and have very little trouble in holding the trade thereafter.

This port has greater advantages for supplying the Manchurian market than any other, the main competitors being Vladivostok and Dalny. The former is dominated by Russians, who are not to be greatly feared owing to their having to transport their supplies long distances by railway; the latter place is controlled by the Japanese, who are ambitious, enterprising, and are losing no opportunity to secure for themselves the trade of Manchuria; but they also are at a disadvantage in being obliged to depend on their railways for the transportation of everything into the interior, while Newchwang has the advantage of being able to reach a large section of the country by Chinese junks, which ply on the river Liao and its tributaries for eight months in the year and deliver freight at much lower rates than the railways can possibly do.

GREAT POSSIBILITIES IN FARMING AND MINING.

Manchuria has been greatly handicapped for the past fifteen years by political troubles, which seriously retarded the progress and development of the country; but now the political horizon is clearing up and the inhabitants are turning their attention to farming and other industrial pursuits with renewed zeal, which will undoubtedly lead to a greater prosperity than was ever known before; and, especially with the influx of new settlers, the country has great possibilities in both farming and mining, and it is believed that within a very few years it will be the best market for agricultural machinery and farming implements in all Asia. Whether the demand will be supplied by America or Europe will depend entirely upon the enterprise shown by the manufacturers themselves, for, as already intimated, those who first get their goods introduced will be hard to depose, even though others may offer better goods.

It is a well-known fact that the American agricultural machinery and farming implements can not be excelled either in utility, quality, or price, and it would be a pity if, through the apathy of the Americans, they should let other manufacturers, who are aggressively striving for the oriental trade in all lines, steal a march on them in this very promising market.

HOLLAND.

OBJECTIONS TO AMERICAN MACHINES.

Consul Frank D. Hill, of Amsterdam, submits the following letter from a Dutch house concerning agricultural implements:

The only American agricultural implements for which we have a ready sale here are lawn mowers for hand power and mowing machines drawn by horses. Imports of mowers have increased in the last few years. We do not think that many other American implements are sold here, as we have found there is hardly any demand for them. Especially are English and German implements, such as rakes, haymakers, plows, chaff cutters, etc., imported here in great quantities, and we think that one of the reasons is that the construction of the American machines, such as rakes and haymakers, etc., are much lighter than English ones. The general demand here is for heavy machines. We also think that as America is so far off, and as the farmers only buy a machine at the moment that they want it, it will be very difficult to get American machines introduced, and one should have to keep a very large stock in order to be able to supply promptly the machine that may be asked for.

The consul states that he has just written an American firm as follows:

The present sources of supply of agricultural implements imported into the Netherlands are Great Britain, Germany, and the United States. There is no duty on agricultural implements imported into the Netherlands. The nearness of Amsterdam to English and German manufacturing plants, the convenience therefore in ordering goods which can be instantly delivered, thus dispensing with the necessity of carrying large stocks, the closer personal relations of the parties, and possibly more liberal terms or credit give our competitors a marked advantage. At any rate American trade in your branch has no large extension here, and is, in fact, unimportant except in the matter of harvesting machinery, nor do I think that the trade is increasing to any marked extent. One of the standard objections that the importer of American goods has to meet here is that American machinery is regarded of too light construction for the soil of this country. How valid this is may be considered doubtful. To my personal knowledge, an American maker of plows gave an exhibition here last year, and while the results were not entirely satisfactory, because the only plows he had were not precisely adapted to conditions here, yet he stated to me that American gang plows would do the work. In conclusion, I would recommend that you appoint a reliable agent here with exclusive powers over his district and provide him with sufficient stock in ample variety, following his judgment as to what lines, styles, etc., can be sold in this country.

ASIA MINOR.

POSSIBLE MARKET FOR AMERICAN IMPLEMENT MANUFACTURERS.

The following information concerning the possibility of building up a trade in American agricultural implements in Armenia is furnished by Consul Evan E. Young, of Harput:

This consulate has repeatedly called the attention of American manufacturers of agricultural implements to the possibility of opening up a splendid market for their products in this field. The country round about is exceedingly fertile and well adapted to farming purposes. Heavy falls of snow in the winter and the spring rains rarely fail to provide sufficient moisture to carry the crops safely through the dry summer season. Only the lack of suitable farming machinery prevents the farmers from reaping rich rewards. The time is near at hand when the modern plow will displace the primitive crooked stick, and when drills, reapers, mowers, and other modern farming implements will be universally seen in these fertile valleys and plains.

It is for American manufacturers to say whether they will command and control this market. Stated plainly, the case is this: Catalogues will not sell agricultural machinery to the local farmers, nor can local firms be found who will send large cash orders to the United States when they can secure the same goods on credit from Germany and other countries. There are, however, reliable and energetic firms who are anxious to handle American agricultural implements on consignment, payment for goods to be made as fast as they are sold. Toward this policy American manufacturers do not at the present time seem to be favorably inclined. In my opinion, however, unless some such policy be adopted, or more liberal terms of payment extended to the local buyers, the market here for agricultural implements will soon be found in the hands of the manufacturers and exporters of other countries.

MARKETS FOR TYPEWRITERS.

MEXICO.

A GROWING DEMAND FOR A GOOD MACHINE.

Consul A. J. Lespinasse writes from Tuxpam that among the many time and labor saving devices introduced in Mexico probably none have met with such universal and prompt acceptance as the typewriter. He continues:

Five years ago only two machines were in operation here, and those employing them were considered extravagant, but the many advantages offered by the typewriter were soon recognized and at the present time their use in this city has become general. There is still ample room for many more, and American manufacturers should employ all means to secure the permanent control of this important and constantly expanding trade. If within practical bounds manufacturers who are not satisfactorily represented should establish their own agency in Mexico City or some other important point or points, so as to cover this country as thoroughly as possible, and employ native salesmen who understand how to approach and transact business with their countrymen. As an illustration it may be stated that some time ago two salesmen appeared in this city, both representing standard machines, one an American possessing a fair knowledge of the Spanish language, the other a Mexican.

The American on his arrival proceeded to canvass the city at once and in a few hours claimed to have accomplished the feat thoroughly and reported that it was impossible to sell a single machine. The Mexican quietly installed himself in the most comfortable hotel and for several days was apparently paying no attention to business but was greatly interested in becoming socially acquainted with the leading members of the business community. A week after his arrival he had disposed of a number of machines on cash and easy payments, thus confirming the adage that it is better to make haste slowly, or at least it is safer to adopt such a course here, where considerable sentiment and commercial amenities enter into the business methods of the native merchants, who are apt to allow their judgment to be swayed to a greater or less extent according to the manner in which they are approached. This feature should be thoroughly understood by American salesmen and discreetly acted upon whenever brought into contact with all classes forming the business community in Mexico. The duty on typewriters is 22 cents Mexican per 2.2 pounds.

TYPEWRITING MACHINES IN MONTEREY.

Consul-General Philip C. Hanna reports that the sale of typewriters in Monterey is rapidly on the increase and that Mexicans, even on the haciendas and small hamlets, are becoming more addicted to the habit of using writing machines. He continues:

Formerly there was a demand for cheap machines, but this appears to have fallen off recently and now the buyers demand the best standard machines. Leading business houses and Government offices

keep up with the latest improvements in writing machines, and are prompt to trade old machines for new ones in order to have the very best. All the machines used appear to be of American manufacture, and are sold here at a price only a little above that at which they are offered in the United States. Mexico has made no beginning in the manufacture of typewriters, and consequently the duty on them is quite low. [The principal typewriter dealers at Monterey are listed at the Bureau of Manufactures.]

HOLLAND.

AMERICAN MACHINES COME VIA LONDON.

With respect to typewriting machines and supplies in the Netherlands, Consul F. D. Hill, of Amsterdam, quotes from letters written him by the representatives of several American typewriter concerns, the first one being as follows:

It is an impossibility to state how many American machines are imported in the Netherlands, as the chief representation is mostly in London and direct import from America is an exception. The import via England is in some way a profit for the Dutch representative. Perhaps there is not a country in the world where so many changes are wished in the regular keyboard as in Holland. The Dutch representative orders his machines from England, where the changes are made, and this is a great convenience for him.

Machines with visible writing are mostly preferred to others, though some of the first users of typewriters stick to the old styles. Every year business increases and officials (ministerial departments, town secretaries, etc.) come, though still slowly, to the conviction that typewriters are also of great use to them. As to tradespeople, lawyers, manufacturers, etc., the typewriter begins to find its way, even in smaller concerns.

The typewriter supplies used in the Netherlands are mostly imported from England and Germany, owing probably to the fact that direct offers from America are very rare and visits from American travelers rarer still. As far as our experience goes prices quoted in America are also far too high compared to those quoted in England and Germany.

Another agent writes:

Although business in our line moves but slowly in this country, we have during the past year done a fair amount of business in typewriters and supplies. Future prospects point to a continuance of fair trade, although there is keen competition from German-made typewriters. New makes of German machines are continually being placed on the market, and naturally, owing to the close proximity of Germany to Holland, the German manufacturer has some advantages over the American manufacturer in freight dues and easy transportation.

The representative of another firm writes:

In general the typewriter and office supply trade has been satisfactory in the year 1906. The business is steadily increasing and the prejudice against modern office equipment is gradually diminishing. Prospects are therefore good, principally because more and more young business men with modern ideas and mostly a business education in foreign countries as well as in Holland are taking the leading part in Dutch firms. Notwithstanding this, it is still a very difficult task to introduce a new make or device and therefore American manufacturers must be careful in the selection of their agents, who should be young men with a thorough knowledge of business and business methods (especially American), energy and perseverance, good and polite talkers, perfect address, and last, not least, with many good relations in business circles. There is a pronounced tendency toward "visible writers," though some large concerns still prefer the "blind" machine, because the latter is stronger and more reliable.

I see a new machine on sale, made in the United States. The agents of this machine, who are also agents for American safes,

phonographs, and motor boats, state that they carry it as a by-line and do not send out travelers, which is absolutely required to work up a trade. Competition is very sharp, yet prices are not cut under. In their opinion there is a future here for the typewriter.

BRITISH ENGINEERING TRADES.

A NEW AGREEMENT BETWEEN EMPLOYERS AND EMPLOYEES.

The following report, covering the new agreement entered into between the employers and employees in the machine building and iron working industries of Great Britain, is furnished by Consul Frank W. Mahin, of Nottingham:

As the result of a strike and lockout in the engineering and ship-building trades which, ten years ago, paralyzed those industries throughout Great Britain for several months, the employers organized into a strong federation, and the employees cemented and strengthened their association. The strike was ended in 1898 by a treaty which has since prevented strikes, except of a local and minor kind; but the employees, it is said, have never forgotten that the treaty was framed and signed when they were a beaten force. Since again becoming strong and prosperous they have felt that the treaty should be revised. This has now been done, in joint conferences of employers and employees. A new agreement has been signed by the officers on both sides, and will be effective when ratified by the members of the workmen's federation. The workmen gain, in comparison with the old agreement, material concessions regarding piecework and overtime, which, it is hoped, will induce them to vote affirmatively. The new agreement is generally considered as of the utmost importance. Framed in time of peace and prosperity, and with a disposition on each side to satisfy the other, it is peculiarly just and fair, and seems to leave no ground for future disagreements. As the term "engineering" refers to machine-building industries and iron-working concerns generally, the agreement is far reaching and touches interests which are vital to the country's welfare and reads:

THE AGREEMENT.

The federated employers shall not interfere with the proper functions of the trade unions, and the trade unions shall not interfere with the employers in the management of their business. Every employer may belong to the federation and every workman may belong to a trade union or not as either of them may think fit. Every employer may employ any man and every workman may take employment with any employer, whether the workman or the employer belong or not to a trade union or to the federation, respectively. The trade unions recommend all their members not to object to work with nonunion workmen and the federation recommends all their members not to object to employ union workmen on the ground that they are members of a trade union. No workman shall be required, as a condition of employment, to make a declaration as to whether he belongs to a trade union or not.

Employers and their workmen are entitled to work piecework, provided: (a) The prices to be paid shall be fixed by mutual arrangement between the employer and the workman or workmen who perform the work; (b) each workman's day rate to be guaranteed irrespective of his piecework earnings; (c) overtime and night shift allowances to be paid in addition to piecework prices on the same conditions as already prevail in each workshop for time work. All balances and wages to be paid through the office.

OVERTIME, EATING, AND APPRENTICES.

The federation and the trade unions are agreed that systematic overtime is to be deprecated as a method of production and that when overtime is necessary the following is mutually recommended as a basis, viz: That no union workman shall be required to work more than thirty-two hours' overtime in any four weeks, after full shop hours have been worked, allowance being made for time lost through sickness, absence with leave, or enforced idleness. In the following cases overtime is not to be restricted: Breakdown work, repairs, replacements, or alterations for the employers or their customers; trial trips and repairs to ships; urgency and emergency.

Employers have the right to employ workmen at rates of wages mutually satisfactory to the employer and the workman or workmen concerned. In fixing the rates of skilled workmen the employer shall have regard to the rates prevailing in the district for fully trained and skilled men. Unions, while disclaiming any right to interfere with the wages of workmen other than their own members, have the right in their collective capacity to arrange the rate of wages at which their members may accept work. General alterations in the rates of wages in any district shall be negotiated between the employers' local association and the local representatives of the trade union or unions concerned.

There shall be no recognized proportion of apprentices to journeymen, but it shall be open to the unions to bring forward for discussion the proportion of apprentices generally employed in the whole federated area. An apprentice shall be afforded facilities for acquiring a practical knowledge of the branch of trade he adopts and shall be encouraged to obtain a theoretical knowledge thereof as far as circumstances permit.

Employers have the right to select, train, and employ those whom they consider best adapted to the various operations carried on in their workshops and to pay them according to their ability as workmen. Employers, in view of the necessity of obtaining the most economical production, whether by skilled or unskilled workmen, have full discretion to appoint the men they consider suitable to work all their machine tools and to determine the conditions under which they shall be worked. The federation recommend their members that, when they are carrying out changes in their workshops which will result in displacement of labor, consideration should be given to the case of the workman who may be displaced, with a view, if possible, of retaining their services on the work affected or finding other employment for them.

AVOIDING DISPUTES AND CONFERENCES.

With a view to avoid disputes, deputations of workmen shall be received by their employers, by appointment, for mutual discussion of any question in the settlement of which both parties are directly concerned, or it shall be competent for an official of the trade union to approach the local secretary of the employers' association with regard to any such question, or it shall be competent for either party to bring the question before a local conference to be held between the local association of employers and the local representatives of the trade unions. In the event of either party desiring to raise any question, a local conference for this purpose may be arranged by application to the secretary of the employers' association or of the trade union concerned, as the case may be. The local conferences shall be held within twelve working days from the receipt of the application by the secretary of the employers' association or of the trade union or trade unions concerned. Failing settlement at a local conference of any question brought before it, it shall be competent for either party to refer the matter to the executive board of the federation and the central authority of the trade union or trade unions concerned. Central conferences shall be held at the earliest date which can be conveniently arranged by the secretaries of the federation and of the trade union or trade unions concerned. There shall be no stoppage of work either of a partial or of a general character, but work shall proceed under the current conditions until the procedure provided for above has been carried through.

An organizing delegate of the Amalgamated Society of Engineers shall be recognized as a local official entitled to take part in any local conference, but only in his own division. In case of sickness, his place shall be taken by a substitute appointed by the executive council. Any member of the executive council or the general secretary of the Amalgamated Society of Engineers may attend local conferences, provided that the member of the executive council shall attend only such conferences as are held within the division represented

by him. A member of the executive council or the general secretary of the Steam Engine Makers' Society and of the United Machine Workers' Association, respectively, may attend any local conference in which the societies, or either of them, are directly concerned. Central conferences shall be composed of members of the executive board of the federation and members of the central authority of the trade union or trade unions concerned. An employer who refuses to employ trade unionists will not be eligible to sit in conferences.

MACHINE TOOLS FOR HOLLAND.

AMERICANS SUPPLY HALF THE TRADE—SHORTCOMINGS NAMED.

An importing firm in Holland has written to Consul F. D. Hill, at Amsterdam, conveying the following opinions regarding the market in Holland for American machine tools:

As a rule the best tools made in Europe are about the same in price as the American tools with this difference, that over here they use a harder material which insures longer life. American tools, though preferred, are much copied, and in this work Germany leads. The German prices for the medium classes of tools are, when copying, about the same price as the American, but in their original constructions they are much cheaper, because they do not study so much the elegant lines that attract so much in American tools. However, as a rule, American machines are preferred in Holland if they can be bought at prices only a little higher than similar European tools. American manufacturers should, however, take care to keep their word. One of the reasons why some years ago the trade in American tools over here was very good was that they could furnish promptly and kept their word in delivering as stated. The German makers mostly do not. It is not an exception to find that a machine accepted to deliver within, say, three months can not be sent off before five months have passed. This was in favor of American makers, but at present it seems that some American makers follow the way of the German.

ORDER LOST BY DELAYED DELIVERY.

We know of an instance where a machine tool maker sent out his stock list every month. When the buyer wanted a machine he cabled for it and instead of from stock he had to wait three months. This occurred about seven times in one year, and once these three months grew to nine months.

Another instance: A dealer here closed a Government contract for two machines to be delivered in five months. This contract was made on forfeit for too late delivery. The contract stated that the machine should be made in the United States by certain works. The dealer cabled the order over and on their written order received reply that the makers did not see why they should not deliver in three months from their works, so leaving ample time for the dealer to deliver in time in the Government shops here. After three months the dealer wrote the manufacturer inquiring about the machines, and the makers wrote back that they were busy on the order. The fact is that the American maker kept on promising every two weeks, and always postponing delivery so that at the end of the tenth month they still wrote that they expected to ship the 15th of the next month. At that time the Government wrote that the dealer must pay the forfeit called for in the contract and then the minister canceled the contract. The dealer had to pay about \$200 forfeit; he lost the order and the profit expected on this order.

Such instances do not improve business with American makers and the Government will never again close a contract for machines made by an American firm which has once failed to keep word. The Government, especially the colonial department, has a big share in industry; they control the colonial railways, opium, salt, briquette making, tin and coal mines, and other works in the colonies.

PACKING, DRAWINGS, SETTING UP, AND COMPETITION.

As a rule packing of American machine tools is very good and much better than that of European tools.

European tools, especially those of German makers, are often preferred by

the Dutch Government and by others because the makers always send with their prices a blueprint drawn on scale and the principal dimensions filled in. Several shops are limited in their space for tools and often have to select a space blueprint in hand in order to see where they can put the machine down. Then European makers will furnish, when wanted, a complete set of detailed working drawings of the machine they have sold. As a rule these complete drawings are only requested by the colonial government and the Germans get most of the orders because they comply fully with the Government's wishes for complete drawings in detail.

A point in favor of German tools, especially in the heavier class, is the fact that every maker will send, when asked for, a competent man to erect and start the machine, charging for this man's services a nominal sum of money. This insures the maker good working of the machine and pleases the buyer, because he has started the machine without any trouble. In the regular medium class of machines most dealers have their men or operators for the machine they sell.

The sharpest competition exists between the United States and Germany, on account of difference in prices in the regular machine tools. Competition with England is not so keen, because the English type of machine is distinctly different from American lines and if some one over here will buy an English lathe he will not buy an American or German lathe, not even when the American machine may cost less.

Shipbuilding machine tools, except pneumatic tools which are bought from the United States, are generally ordered from England, because the higher prices charged for American tools are not in proportion to the difference in output. On the whole, we believe that about 50 per cent of machine tools imported into Holland are American makes and the other half European, but American makers must bear in mind that the amount of their business could be improved by keeping their word respecting delivery, delivering quick, and by sending drawings when wanted by honorable parties.

FIRE APPARATUS.

GERMANY.

LEIPZIG ADOPTS COMPLETE AUTOMATIC EQUIPMENT.

Consul S. P. Warner reports that the Leipzig fire department has purchased and put into use at the principal fire-engine station four electrical machines, i. e., engine, ladder truck, and two tenders, of which he gives the following particulars:

One of the tenders is used exclusively for trials and for training the members of the fire company in the use of the machines. The principal advantage claimed for the new machines is that they are always ready to start for a fire the instant an alarm is sounded. They also do away with the necessity of keeping a number of horses, and thus materially reduce the contingent expenses of the fire department.

The electrical power for running the machines is stored in accumulators. Owing to the quantity of lead employed in the construction of these accumulators, the machines are all very heavy, their weights varying from 5 to 6 tons. All of the machines are driven from the front axles, so that it is possible to turn them even in the narrowest streets. Each machine is equipped with two motors, which can develop from 7 to 14 horsepower. They have five forward and two backward speeds and one electrical and one hand brake. The machines are guaranteed to run a distance of 18.5 miles on one charge at a rate of speed of 15.5 miles per hour, even upon poorly paved streets or upon 4 per cent inclines. As there are no hills in Leipzig and as

the streets are all in good condition, the machines can cover a distance of about 24 miles on one charge.

The crews for the various machines are as follows: Engine, two machinists, two drivers, and one fireman; tender, one director, two drivers, and five firemen; and ladder truck, one director, two drivers, and three firemen. The length of the extension ladder, which can be raised either by a carbonic-acid motor or by hand power, is 86 feet. About twenty-five seconds are required to raise the ladder by motor and about one minute and a half by hand power. The engine, which is built upon the three-cylinder system, has a pumping capacity of 320 gallons of water per minute. It carries a tank containing 80 gallons of water, which, by means of a compressed-gas apparatus, can be thrown upon a fire immediately upon the arrival of the engine. It requires about nine minutes for the engine to generate five atmospheres of steam.

Leipzig is said to be the only city in Germany which has a fire company completely equipped with electrical machines.

NEW FOLDING FIRE ESCAPE.

Consul T. H. Norton, of Chemnitz, reports that German officials in charge of fire protection are much interested in a new form of fire escape, lately perfected by a Swiss engineer, and now introduced by a Viennese manufacturer. It consists of a series of folding iron ladders, attached to window frames. Each one reaches from one window to the next one below it. By turning a crank on any floor all of the frames beneath are unfolded in less than a minute and form a continuous means of communication to the ground.

SMYRNA.

OPPORTUNITY FOR PLACING AMERICAN APPLIANCES IN TURKEY.

A report from Consul E. L. Harris states that modern fire extinguishers and appliances have not yet been introduced into Smyrna. As to how sales may be made, he writes:

The real reason for their nonintroduction is because no proper attempts have ever been made. There have at different times been some public exhibits of various methods of extinguishing fire, but the greatest impediment in the way of the introduction of up-to-date apparatus has been the question of price. Strange as it may seem, the fire insurance companies of Smyrna have also steadily opposed any movement to change the old order of things, for the reason that with a greater security of property the rates of insurance must necessarily be reduced. It is also a recognized fact in this city that insurance is often resorted to more or less as a speculation than for protection.

The extinguishers thus far introduced consist of a metal tank fitted with a special valve and charged with the extinguishing fluid. None of the smaller and cheaper appliances, such as hand grenades, etc., have ever been imported. The fire department in this city is not under the supervision of the municipality. It is an enterprise created and supported by the various fire insurance companies doing business in this city.

The fire brigades are fairly well supplied with pumps and accessories. There is a market here for chemical fire extinguishers, and the way for Americans interested in this line of manufacture is to get

in direct touch with the fire brigades. Once the adoption of these appliances is decided upon a large and lucrative trade will be the result.

LAUNDRY WORK IN ARGENTINA.

POSSIBLE MARKET FOR MODERN AMERICAN MACHINERY.

Consul-General Alban G. Snyder, of Buenos Aires, replying to inquiries as to laundries in Argentina, made by a Chicago journal, writes as follows:

As far as I can ascertain all the laundry work here is done entirely by hand. The workers call around once a week to take away the clothes. Modern laundries do not exist. I understand that there were some here years ago, but no one seems able to give information as to what their success was or why they were discontinued. Prices for laundering are very high, and the work done is of the poorest quality, having far more injurious effects upon the clothes than the very worst methods I have ever seen employed by steam laundries in the United States. The clothes wear out very quickly, and the reason advanced for this is that, being washed by hand in a very crude manner, the washers have to resort to certain chemical preparations to make up for the loss in mechanical power.

I see no reason why some laundry machinery, small, compact, and easily manipulated, should not meet with ready sale if properly introduced. While the introduction may be effected through the medium of circulars and printed matter, I have become convinced that the best way to introduce merchandise here is by the aid of a traveling representative established in the country, who makes a study of the market and conditions.

Electric Elevators in South Africa.

The South African demand for electric elevators is stated to be rapidly increasing. The erection of many sky-scraper buildings creates an enormous demand for construction material and on account of the scarcity of water for the hydraulic elevator these new buildings are largely demanding the electric lifts. Not only are the commercial emporiums putting in these electric elevators, but the hotels as well. As there is a decided tendency to erect more up-to-date hotels the call for such appliances should be much extended.

MINERALS AND METALS.

IRON INDUSTRY.

RUSSIA.

OUTPUT OF ORE RESTRICTED IN ORDER TO MARKET OVERPRODUCTION.

Consul Alexander Heingartner writes from Riga that notwithstanding the depression in the Russian iron industry the extraction of the southern hematite ores continues to increase. He adds:

This is due to the rapid growth in the export of these ores to Silesia and Westphalia, which rose from 220,000 tons in 1905, to 460,000 tons in 1906, which was about 10 per cent of the output. In view of the small available quantity of these ores, estimated at only 66,000,000 tons, this increase in the export is causing some anxiety to the local mill owners, as the other ores of the district are of poorer quality and less importance, the output having decreased from 180,000 tons in 1899 to 28,000 tons in 1906. The peninsula of Kertch, on the other hand, possesses valuable deposits of the metal, estimated at 466,000,000 tons, but owing to the backward condition of the industry in this region the yearly amount of ore smelted is not above 250,000 tons.

The mines of the Ural, where the largest deposits of the ore are to be found in the Empire, have been forced to restrict their output. It is hoped to extend the market for these ores to the south, and by a reduction in freight rates and a more thorough utilizing of the inland waterways, to lay down the ore at the Don foundries for about \$3.84 per ton, a price only slightly higher than the local hematite ores. If the south can obtain the Ural ores at that figure the future of its iron industry is assured, and the local mill owners can view the export of their hematite ores to Germany with indifference.

PRODUCTION OF PIG IRON.

In the manufacture of pig iron there has been since 1900 a certain displacement in the local production, as appears from the following table:

Country.	1900.	1906.	Capacity of mills.
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
South Russia	1,477,600	1,656,800	2,730,000
Ural	811,000	660,000	996,000
Central Russia	230,000	84,375	386,000
North Russia	86,680	12,700	56,250
Poland	298,460	246,700	562,500
Total	2,847,740	2,660,575	4,729,750

The overproduction of 1900 and an only slightly smaller output in the following year caused a large accumulation of stocks, which

were only disposed of by a great curtailment of production during subsequent years and a reduction in price. Their favorable situation, with regard to the principal markets, their use of coke as fuel, and the introduction of important technical improvements have enabled the South Russian iron mills since 1904 not only to return to the level of the production of 1900, but also, owing to the high tariff on the foreign article (\$14.40 per ton for ordinary marks, \$24 per ton for special), to extend their markets to the north and northwest.

The capacity of the Russian iron mills is much larger than the present output and the limit will not have been reached, even should the present imports of machinery (in 1905 7,624,000 poods, the equivalent of 137,232 tons of pig) be replaced by the domestic article and the per capita consumption of iron in Russia increase to that of Austria or Sweden. The import of pig iron, which has already decreased to 5 per cent of the total production, will no doubt cease entirely in the near future.

The prices of pig iron at the most important markets of south and north Russia for the years 1904-6 were about equivalent to the prices abroad. With a reduction of \$1.60 per ton in the present cost of production (about \$12.50 to \$12.80 per ton), which is considered possible with a more up-to-date equipment of the mills and improved processes in manufacture, it is expected that Russian pig iron will soon become an article of export.

MANUFACTURE OF IRON AND STEEL PRODUCTS.

Rails are manufactured in four districts, the south leading with a production in 1905 of 290,000 tons out of a total of 373,180 tons. The southern mills are also best equipped for this specialty, requiring only 1.062 tons Bessemer ingots per ton of rails.

With pig iron costing \$12.50 per ton, the cost of production in the more modern mills is about \$19.85 to \$20.85; in the others about \$24.40. In the smaller rolling mills of the Ural the cost approximates \$27.25, owing to the large amount of manual labor employed in manufacture and the greater quantity of raw material used, viz, 1.406 tons per ton of rails.

As the yearly requirements of the Russian railroads, with a length of 60,000 versts (40,000 miles), are about 257,140 tons rails, and the capacity of the mills 707,140 tons, not only can Russia supply its own home demand, but also furnish a large quantity for export. To gain the foreign markets, however, the mills will have to reduce the price at least \$1.90 per ton below that of the international rail syndicate. Of structural shapes of all kinds there were produced in 1905 1,176,000 tons, the bulk of the production, or two-thirds, falling to the south. Of iron and steel plates and sheets, the south is the largest producer, with an output of 126,640 tons out of a total of 230,460 tons. The capacity of the mills is 530,350 tons, exclusive of roofing plates. The demand for boiler plates exceeds the supply, and a small quantity, 8,840 tons, was imported in 1905.

Roofing plates are also manufactured in all districts, although the Ural is the largest producer, with an output of 175,180 tons out of a total of 213,260 tons. Formerly the Ural had a monopoly of this manufacture, supplying even foreign markets with the article, and should the Russian mills modernize their processes a revival of this

export is considered quite possible. The district still holds a dominant position in the Russian markets owing to the uniformly fine quality of the plates, charcoal iron alone being used in manufacture.

WROUGHT IRON—EXPORTS TO ARGENTINA.

The general decline in the consumption of iron has also necessitated a curtailment in the production of wrought iron, estimated for 1906 at 15 per cent. The causes that have led to the decline being still in force, relief can only be looked for in an export of the surplus products, which in view of the increased European requirements appears now possible.

The important question remains whether the Russian mills are technically so well equipped as to be able without loss to supply the foreign demand. This can be unhesitatingly affirmed in view of the fact that Russian iron products are sold at home at equal and in many cases lower prices than the foreign article. For the realization of an export, which in view of the present condition of the industry is becoming a necessity, certain reforms have to be effected, among which are lower freight rates, in view of the enormous distances of the iron centers from the European markets, and an organization of the industry for export purposes and the creation of a staff of special agents and travelers.

The sale by a south Russian mill of 8,000 tons of pig iron to Argentina at a price of \$14.40 per ton at mill, or \$20.50 delivered, and the decision of the ministry of finance at a meeting on railroad tariffs to reduce, in the interests of the domestic industry, the rates on the state railroads on iron and steel products were two events that occurred recently.

PREPARING TO ENTER FOREIGN MARKETS WITH ROLLING-MILL PRODUCTS.

A report from Consul-General Richard Guenther, of Frankfort, Germany, says:

A press dispatch from St. Petersburg states that the rolling mills in southern Russia have recently been allowed exceptionally low freight rates on rails and construction iron destined for foreign countries and to be carried on the railroad to ports of the Black Sea. It is quite a novelty that Russian iron manufacturers enter foreign markets as competitors against the great industrial countries of western Europe. These initiative exportations are experiments and the exporters do not reckon on a profit, but will be well satisfied if proceeds balance manufacturing cost. Their aim is to secure a place in the world markets where they can dispose of their surplus products when their industrial development has outgrown home demands. These Russian works have already opened negotiations with the International Steel Rail Syndicate at London to be accorded a quota, i. e., a foreign section where they can sell their rails. It is intended to find markets for these Russian exports in the Balkan States, Asia Minor, Egypt, Italy, and South American countries. Contracts for the delivery of Russian rails have already been made with parties in Italy and Argentina, also for the shipment of rails and of 300 iron railroad cars to Roumania.

BRITISH COLUMBIA.

REVIVAL OF IRON MINING INDUSTRY—MANY IMPROVEMENTS.

Consul L. E. Dudley, of Vancouver, writes that after many years of inactivity the iron mines on the west coast of Texada Island, British Columbia, are to be opened up on a large scale, and by the latter part of July steady shipment of ore to the Irondale smelter near Port Townsend, in the State of Washington, will be started. He continues:

Recently the capital necessary for the complete reconstruction of the old Irondale plant, which years ago was fed by the Texada ores, has been furnished. The remodeling of the smelter plant has now been completed and the ore supply is being arranged for. It is the intention to draw the principal ore supply from Texada Island, and the necessary fluxes will be secured from other points. It is understood that work is to be started at once on the erection of a deep-water wharf near Gillies Bay, Texada Island. From the wharf the ores will be loaded into vessels for transportation to the Irondale smelter on Puget Sound. The present wharf near the mines, which was built by the Provincial government, will not be used, as its position is exposed to the full force of the Qualicum winds.

The iron deposits were taken up by their present owners in 1878. The holdings consist of 5 square miles of ground within the area of which are embraced the iron deposits. The face of the iron showings, which have a width of several hundred feet and angle up a hillside for 800 feet, lie right on salt water. It has been estimated by a number of competent engineers at various times within the past twenty years that there is now in sight not less than 10,000,000 tons of iron ore. The ores are magnetite of a very high grade. The quality is such that when the ores were smelted at Irondale years ago, the commercial No. 2 pig could always be bent before it could be broken, so great was the tensile strength. As the market to be catered to lies altogether in the United States, it is preferable to export the raw ores and manufacture them in the United States.

TO RESTRICT EXPORTATION OF ORE.

The government of British Columbia, at the session of the local parliament which adjourned recently, made an announcement that at the next session, which will convene early in 1908, it would bring in a bill requiring that all iron ore mined upon provincial lands should be smelted within the Province. The property upon Texada Island was Crown granted years ago, and the new law may not apply to exports from that property. There are many other large deposits of magnetic iron ore upon the west coast of the mainland of this Province. Upon Vancouver Island large deposits of "bog-iron" ore are reported, which will be useful in fluxing the magnetic ores. There are large quantities of hematite ore in the interior.

Texada Island is very rich in lime rock, much of which approaches very nearly to good, serviceable marble. A mining company, operating on the northern end of Texada Island, in addition to shipping very large quantities of ore rich in gold and copper, also operates two lime kilns and supplies a large amount of lime to Vancouver,

Victoria, Seattle, and the Hawaiian Islands. At the present time a very large quantity of pig iron is brought here from Scotland, which the experts pronounce an inferior grade to the pig iron manufactured from the ores of Texada Island.

AUSTRALIA.

VAST DEPOSITS OF ORE—ESTABLISHMENT OF REDUCTION WORKS.

Consul Thornwell Haynes sends from Nankin an extract from a Chinese newspaper which treats on the iron industry of Australia. The article follows:

The successful establishment of the iron-manufacturing industry has long been the cherished desire of the Australian people, and its realization has been brought within measurable distance by the contract entered into by the Eskbank Iron Works, near Lithgow, with the New South Wales government for the supply of all steel and iron required for State purposes during the next seven years. The existence of iron ores of various kinds was ascertained in the early days of the mother State, but nothing was done for many years in the way of utilizing them; yet the deposits have been estimated officially to contain 59,317,000 tons of ore. The chief deposits are at Carcoar, where they are estimated to contain 3,100,000 tons, and at Cadaia, where the quantity is set down at 39,000,000 tons; the ores in the former locality containing rather a high percentage of phosphorus, while at Cadaia the product is impregnated with sulphur and copper.

At present the only works in the Commonwealth for the manufacture of iron from the ore are situated at Eskbank, near Lithgow, in New South Wales, where red siliceous ores, averaging 22 per cent, and brown hematite, yielding 50 per cent metallic iron, have been successfully treated. Abundance of coal and limestone is found in the neighborhood. Recently considerable quantities of iron ore have been raised from the deposits situated in the Marulan, Picton, and Carcoar districts, and dispatched to the Dapto and Cockle Creek, where they have been used as flux, the gold contents of the ore helping to defray the extra cost of railway carriage. The total raised in 1903 was 22,120 tons, valued at \$76,000 gold, and up to the end of that year 63,478 tons, valued at \$240,000 gold, have been obtained. A considerable quantity of iron oxide is also raised each year and used for flux, while there is also an export, usually small, but amounting in 1903 to 1,193 tons, valued at \$5,500.

DEPOSITS IN QUEENSLAND AND TASMANIA.

In Queensland the principal deposits occur in the Northumberland and other islands between Rockhampton and Bowen, at Mount Lucy in the Herberton district, at the Iron Mountain in the Kangaroo Hills, and at Mount Leviathan in the Cloncurry district. During 1903 9,808 tons of ore, valued at \$19,000, were raised, chiefly in the Herberton district, for use as a flux in smelting. Large deposits are found in South Australia, the most important being those at the Iron Knob and Iron Monarch mines, situated about 40 miles west of Port Augusta. The ore contents of the Iron Monarch are estimated to be 20,000,000 tons. In 1903 33,359 tons were obtained from the deposits at Iron Knob and used in the Broken Hill Proprietary Company's reduction works at Port Pirie.

In Tasmania, notwithstanding the huge deposit of iron ore at the Blythe River, the production has not been great, and in 1903 only 9,320 tons, valued at \$15,000 were mined, the greater portion of which was shipped to New South Wales for fluxing purposes. During 1901 the deposit was tested by tunneling and found to maintain its size and quality, and it is estimated to contain 17,000,000 tons of ore. It was proposed to ship the ore to Sydney and smelt it somewhere on the seaboard, but the contract with the Eskbank Works to manufacture steel and iron principally from local ores has prevented the realization of the project.

The deposits in Western Australia are widely distributed, the most important being those in the watershed of the Murchison River, but owing to their geographical position they are practically valueless, the only iron mined being for smelting purposes, the production in 1903 being 220 tons. The various engi-

neering, galvanized-iron works, iron works, and foundries in the Commonwealth in 1903 employed a total of 16,636 hands. This does not include those in other establishments in which metal industries are carried on. As showing the possibilities of a local iron manufacturing industry, it may be mentioned that during 1903 the import of iron and steel into the Commonwealth amounted to 3,087,917 hundredweight, valued at \$7,000,000.

NEW SMELTING PROCESS.

MUCH INTEREST AWAKENED BY AN AUSTRALIAN INVENTION.

Consul O. H. Baker, of Sydney, Australia, forwards a supplementary report on the Moore-Heskett process of producing iron and steel from ore without reduction to pig iron. He states:

My preliminary report, in Daily Consular and Trade Reports of January 29, concerning the new smelting method, awakened a very great interest throughout the United States, as I have received numerous letters asking for further particulars explaining the process.

In a communication from the manager of the company I am informed that a demonstration of the process is being carried out on commercial lines in the presence of and under the direct supervision of six experts, including the consulting engineer to the Queensland government. It is claimed that these experts saw the furnaces empty, had the ore for treatment prepared under their supervision, and the furnace started in their presence, one of them remaining at the works to supervise operations throughout the whole run.

SAVING EFFECTED—RESULT OF TEST.

Mr. Henry C. Stanley, consulting engineer to the Queensland government, who visited the plant for the purpose of demonstrating the success of the patent, says:

I spent some time in examining the plant in question and watching the process in actual operation and am satisfied that it attains the object claimed for it by the inventors. The plant having been erected for experimental purposes is, of course, on a comparatively small scale, but I am informed that it is capable of turning out 10 tons of malleable iron or steel per diem. This being the case it would seem to be of sufficient size to test the practical value of the process, and might therefore be applied to a plant of any desired capacity with equally satisfactory results.

At the time of my visit the ore being treated was some of the New Zealand magnetic iron sand, but the inventors assert that it is effective in treating any ferruginous ore, provided the same is pulverized in the first place—an operation which can be readily done by mechanical means at small cost. It is unnecessary for me to recapitulate in detail the different steps of the process, but I was satisfied from what I observed that iron and steel can be made by it in an economical manner and of the best quality.

I had no opportunity of verifying the figures given as to saving in first cost of the plant and the comparatively small amount of labor necessary to operate it, but I see no reason to question their correctness. The economy in first cost of installing the machinery, which is stated to be only one-fourth that required by the present method of smelting, as well as the 25 per cent saving in operating expenses, should lead to its general adoption and result in the financial success of the company. With regard to the quality of steel produced, I may say that when recently in Brisbane I was enabled, through the courtesy of the chief engineer of the Queensland railways, to test a bar of mild steel in the testing laboratory attached to his department. The tests gave most excellent results and were quite equal to the requirements of the standard specification for steel used in bridge girders and for other structural purposes. The tests were as follows: Tensile strength, 32.78 tons per square inch; elongation in length of 8 inches, 30 per cent; contraction in area, 50 per cent; and apparent limit of elasticity, 20.79 tons.

CONCLUSIONS OF A MECHANICAL ENGINEER.

Mr. W. H. C. Lovely, a mechanical engineer, of Sydney, says that he visited Melbourne and examined the Moore-Heskett process in operation, and went very carefully into the whole affair from every point of view, and arrived at the following conclusions:

Wrought iron and steel can be made in the manner claimed. I have seen it done, and the products are of the very best quality. The working cost would be less than by the old process for the following reasons: By treating pure granulated iron ore separated from the gangue (impurity) magnetically, the high cost of melting and fluxing the gangue is saved, viz, cost of fluxes, fuel, time, and capacity of plant. This saving would vary with the grade of the particular ore used for comparison, but would generally be very large. Where deposits of ore exist already in a granulated state, as in the beach sands of New Zealand, no crushing would be required, and the saving, therefore, would be greater still. The old process can not adopt this method of purifying the ore without the large added cost of briquetting. By saving of fuel in continuous treatment where no remelting is required—once the metal is brought to the necessary temperature it is not cooled till it reaches the final stage of the finished product, and consequently no heat is wasted by any intermediate coolings.

The gas used in the present plant is obtained from oil, but coal-producing gas should do equally well and would be cheaper. The iron industry is one of the greatest in the world, and the vast possibilities before this new process, which has such advantages over the old process, can hardly be realized.

[A pamphlet on the new process issued by the inventors will be loaned to those making application to the Bureau of Manufactures.]

MOTOR FUEL.

SEEKING A SUBSTITUTE FOR PETROL IN THE UNITED KINGDOM.

Consul Albert Halstead, of Birmingham, reports as follows, on the efforts now being made in the United Kingdom to find a substitute for petrol (gasoline) as motor fuel:

The advance in the price of petrol (gasoline), due to the more general use of motors for pleasure and commercial purposes, and the certainty of an increasing demand because of the immense development of the motor industry, leads to efforts to find a suitable substitute for this fuel. Then there is apprehension that petrol may be raised more in price than is legitimately justified by its greater use, because motorists are so dependent upon it. As possible alternatives or substitutes, crude petroleum, paraffin (kerosene), shale oil, benzol, alcohol, and acetylene are mentioned in Motor Traction. Some of these, though unsuitable for use alone, are said to give better results when combined with another hydrocarbon. Crude petroleum is regarded as unsatisfactory because of its heaviness, except in specially designed engines, such as are not now generally in use. Paraffin, though efficient and powerful, is held to be objectionable because of the difficulty of starting up an engine from the cold, and because the oil has a tendency to creep over the motor and injure its contents. It appears, however, that the use of a small amount of petrol makes paraffin more adaptable, but this can be advanced in price as easily as petrol if it should come into use as a motor fuel. Shale oil is obtained from a bituminous shale found in the coal of the Midlothian district. Though it is said to have good results, the

supply is comparatively small. Acetylene has been used successfully when combined with paraffin or with alcohol, and when water is injected into the cylinder of the engine during the firing stroke. It is feared it will be found too costly under present conditions of manufacture, but it is argued that a tendency to use acetylene might easily result in reducing the cost of manufacture; used by itself it is thought to be likely to strain and damage a motor engine, through the great force of its explosion.

COMBINATION OF LIQUID FUELS.

Alcohol and acetylene have been combined experimentally for motor-fuel purposes with some degree of success, but the difficulty is in ascertaining what should be the relative proportions of the two ingredients. This combination can not, it is felt, become commercially useful in the United Kingdom for motor purposes until alcohol can be produced much more cheaply. The high inland revenue tax now keeps up the price of alcohol, though it can be produced very cheaply from many substances of little value. If alcohol alone were used for internal combustion engines, the design of such engines, it is said, would have to be changed to insure complete combustion. The difficulty in starting an engine from alcohol because of the cold can, it is asserted, be overcome by using either a vaporizer or a burner or a small quantity of petrol in the initial stages.

Benzol is regarded by the writer in Motor Traction as perhaps the alternative fuel most likely to aid in the solution of the question. It is produced during the distillation of coal at gas works, and it is thought that it can be manufactured in sufficient quantities and sold at a fair price if the demand arises for it. It is more powerful than petrol, and experiments made with it are said to have been most encouraging, although the small percentage of sulphuric acid it contains gives rise to rather an unpleasant odor in the exhaust.

GRAPHITE PRODUCTION.

HOW IT IS MANUFACTURED FROM COAL AND PETROLEUM COKE.

The following information, relative to the manner in which anthracite coal or petroleum coke is converted into graphite, is furnished by Consul William H. H. Webster, of Niagara Falls, Canada:

One of the most important electrical industries at Niagara Falls, Ontario, manufactures graphite from anthracite coal and petroleum coke and converts into graphite the forms of raw carbon used in electric furnace work, where high temperature is required, and for electrolytic work, such as the manufacture of caustic sodas, bleaching powders, etc.—in fact, practically all methods of electrolysis. The raw materials used consist of anthracite coal, glass sand, foundry coke, and sawdust, all of which are imported from the United States, except the sawdust.

The furnaces used for the conversion of the anthracite coal or petroleum coke into graphite are in the form of long, narrow troughs, built of fire brick and lined with some suitable refractory or insulating material. In this case the sand, coke, and sawdust are used for insulating, by mixing them together in the proper proportions,

At the end of each trough is a terminal built of carbon rods, to which is connected the cables conveying the current. The trough is filled with anthracite coal, in which is embedded a carbon rod to make electrical connection between the terminals, as the coal is a very poor conductor of electricity. The temperature to which the coal is raised before conversion into graphite is very high, and is said to approximate 7,500° F., a temperature at which all bodies except carbon are vaporized and driven off.

PURITY OF THE PRODUCT.

It is possible to make the graphite practically chemically pure, but for ordinary commercial purposes such a high degree of purity is unnecessary, but it is possible to so regulate the operation that a degree of uniformity of purity is attained which is not possible to secure in the production of natural graphites. When the furnace has cooled sufficiently the graphite is removed, but it is not yet in commercial form and has to be ground to powder and finally separated into the sizes necessary for the various uses to which graphite is put, one of the most important of which is its application as a protective coating for iron and other metal structures.

During the year 1906 there were upward of 454,311 pounds of graphite manufactured here, the greater part of which was exported to the United States. The demand in Canada, though steadily growing, has not warranted the construction of a complete grinding factory such as would be necessary to make all the forms and grades ordinarily required in the trade. It should be emphasized that this graphite is not a mined product, and in comparison with the production thereof the quantity mined in Canada is surprisingly small, the report for 1905 showing that only 541 short tons were mined, valued at \$17,032, while the value of artificial graphite for 1906 was \$21,579.

MEERSCHAUM IN ASIA MINOR.

CHANGING SMOKING TASTES REDUCE THE DEMAND.

Consul E. L. Harris supplies the following information concerning the mining and exportation of meerschaum from Asiatic Turkey:

Meerschaum is a native product of Asia Minor. In a raw condition it is soft, light, and nontransparent. The color is white, with an occasional blending of yellow, red, or gray, and is dug up in nuggets, some of which are of enormous size. The meerschaum district in Asia Minor extends from the town of Eskischehr, on the Anatolian Railway line, almost due eastward to the city of Angora. The diggings are about ten hours by camel train from the railway station, and, as might be expected, the conditions of labor are very primitive. No capitalists thus far have taken the matter in hand. Every digger, therefore, works independently and on his own account. The Government demands 15 per cent as a tax on the quantities which are removed from the field.

The most of the meerschaum of Asia Minor finds its way to Vienna, where it is used almost exclusively in the manufacture of pipe heads and cigar holders. From Vienna these products are sent to every country in the world, the best qualities going to America and France.

In recent years, however, fashion and competition have done much to injure the Austrian export trade in meerschaum pipes, and indirectly the output of meerschaum in Asia Minor. The increase of the consumption of cigars and cigarettes in such countries as Germany and the United States has relegated the meerschaum pipe to a secondary place. Then, again, sweet brier and other hard woods, especially a certain kind produced in Australia, have had the effect to increase the competition on meerschaum. In recent years a meerschaum industry has also sprung up in the United States, where, according to reports, many emigrant Austrian cutters and polishers are doing well. This has also had the effect of greatly reducing the exports to the United States. Fifteen years ago 60 per cent of the meerschaum exports from Vienna went to the United States, but Germany has since supplanted America as Austria's best customer.

Owing to the difficulty of getting exact figures or statistics in Turkey, it is impossible to estimate the quantities and value of the meerschaum sold each year in home and foreign markets. From Austrian sources, however, I learn that the exports to that country in 1891 amounted to \$246,000. At present these exports amount to only about \$150,000. The exports of meerschaum articles from Austria to other countries in 1891 amounted to \$115,000, but this has gradually decreased until at present only about \$100,000 worth finds its way to foreign countries.

COALITE.

A NEW FUEL PRODUCT IN ENGLAND.

Consul F. W. Metcalf forwards from Newcastle a British newspaper statement about a new fuel prepared from coal, for which the following extract points to an extensive use:

A good deal of interest has been centered in "coalite," and numbers have called at the exhibition of it in Newcastle to see this coalite burning in the grate and hear about its remarkable properties as a house fuel. It is a bright, hard substance, very similar in appearance to the best coke, and in burning it makes no smoke and gives off, it is claimed, something like twice the heat of coal, while a coalite fire lasts 40 per cent longer than an ordinary coal fire. This coalite is produced by a process similar to that employed by the gas companies for the production of coke. In the case of the gas companies, coal is treated at a high temperature, the gas and by-products being collected and the residue being coke, but by the coalite process the coal is treated at a much lower temperature, with the result that the gas obtained is much richer. The by-products are also richer, and the residue, instead of being coke is coalite, which can be easily lighted, and burns with great steadiness and economy.

For household purposes it appears to have a special value, in virtue of its cleanliness and its heating power. This is now fully recognized in London, where the prospect of abating the smoke and fog nuisance is hailed with no small satisfaction. The King has been impressed with its qualities and instructions have been given at Buckingham palace to have the cellars swept clear of all coal and nothing but coalite put there for the future. Out of a ton of coal about 70 per cent of coalite is extracted, but its calorific power being much greater, the ton may be said to have suffered no loss in value, while at the same time the gas and vast range of by-products have been extracted.

The intention is to bring out a company in the course of a week or two, which will erect works at Barking, near London, and will possess rights for Great Britain. The new works are to be capable of carbonizing some 3,000,000 tons annually. The process, moreover, can be applied to all bituminous coals. Contracts have already been entered into with the leading coal merchants for the sale of over 2,000,000 tons of coalite per annum for consumption in London only.

WIRE LATH IN SMYRNA.

OPENING FOR SALE OF AMERICAN PRODUCT IN ASIA MINOR.

Consul E. L. Harris, of Smyrna, in calling the attention of American manufacturers of wire-cloth lath to the opportunities which Asia Minor presents for the sale of this article, writes:

Buildings throughout Asia Minor are plastered, not only inside, but, with few exceptions, also outside. The wood lath used for the purpose is all imported, principally from Roumania, and owing to the uniformity of import duty in Turkey there is no reason why a labor-saving substitute like wire lath should not easily compete with wood lath. There are a number of reliable firms dealing in builders' supplies in Smyrna. [Names of dealers on file at the Bureau of Manufactures.] American manufacturers wishing to introduce their articles here may enter into correspondence with them and come to some arrangement whereby their product would be pushed to the front. A quicker way of attaining success would be to send out traveling men, who, with the help of samples, would explain to interested parties the advantages of wire lath and who could better select a capable representative.

PROTECTION TO COAL MINERS.

METHODS TO GUARD AGAINST LOSS OF LIFE AFTER EXPLOSIONS.

Consul T. J. Albert writes from Brunswick, Germany, as follows in regard to preventing mine calamities:

The terrible disasters which have recently occurred in the coal mines of Germany and France have directed the attention of scientists, especially in the former country, to introducing methods of protecting the miners against a recurrence of such calamities, or at least of diminishing, as far as possible, the loss of life.

One measure contemplated is the construction of safety chambers shut off from the rest of the mine and protected against explosions. A conduit of compressed air is introduced into these excavated rooms, and should the conduit be destroyed, vessels or bottles filled with oxygen, stored in these chambers, shall supply the necessary air. Preparations are already being made for the introduction of these arrangements in the mines in the region of the Saar.

TARIFFS.

CHANGES AND REGULATIONS.

ARGENTINA.

REDUCTION OF SUGAR DUTIES.

Consul-General Snyder, of Buenos Aires, reports that the minister of agriculture has recommended and the minister of finance has issued a decree reducing the duty on raw sugar imported into that country by 1 cent gold per kilo.

The preamble to the decree states that the supply of sugar in the country is insufficient to meet demands even without a rise in price above that fixed by law, which is \$3 per 10 kilos put in wagons at the mill and including the tax paid. Following is the decree:

Article I. Item 126 of the customs tariff is altered as follows:

No. 126.—Unrefined sugar, or sugar with polarization less than 96, per kilo. Peso.
0. 06

AUSTRALIA.

DECISION ON DESCRIPTION OF FOOTWEAR AS TO THE INNER SOLES.

In stating that under the commerce act of Australia a trade description must accompany all imports of boots and shoes setting out the principal material from which they are made, Consul-General J. P. Bray, of Melbourne, furnishes the following details:

Unless the soles are of solid leather the description must state the fact and the nature of the admixture or addition. Numerous inquiries have reached the customs authorities as to whether the word "soles" refers to both the inner and the outer soles, and also whether the presence of a small piece of waterproof felt or other similar substance inserted between the inner and outer soles to prevent water penetrating to the inner sole must be disclosed in the trade description. It has now been decided that the word "soles" includes "the inner and outer soles, but not the thin slip of paper or similar substance which is affixed inside the boot to the surface of the inner sole." It is further announced that the presence of the waterproof felt or other similar substance as mentioned must be indicated in the trade description.

BRAZIL.

ABROGATION OF TREATY WITH FRANCE.

Ambassador Dudley, writing from Petropolis, reports as follows:

The treaty of friendship, navigation, and commerce between Brazil and France, concluded at Rio de Janeiro on January 8, 1826, was denounced by the Brazilian Government April 13, 1907, to take effect July 13 next. Articles 12, 14, 15, 16, 17, and 20 of this treaty (the only ones of special importance) had already been denounced in 1832.

The treaty now denounced is similar to those concluded by Brazil in 1826, 1827, and 1828 with the United States and several European countries, all of which were denounced over fifty years ago.

The treaties between Brazil and Belgium, Holland, Italy, Spain, and Portugal, whereby the consuls of those powers in Brazil are given the right under certain conditions to administer the estates of intestates, were also denounced on the same date.

INDIA.

PROPOSITION TO ASSESS SELLING AGENTS FROM ABROAD.

Consul-General William H. Michael states that the following interesting question has been before the Calcutta and Karachi Chambers of Commerce which may later on affect, to a limited extent, American firms doing business in India:

The Calcutta Trades Association suggested that the profits of a person who is not resident in British India, but who consigns goods for sale to an agent residing there, should be assessed for income tax. The Karachi Chamber of Commerce, after considering the question, came to the conclusion that the profits of a person resident in Europe and consigning his goods for sale to an agent resident in India should not be liable to Indian income tax. There is a unanimous opinion in favor of taxing English and continental traders who send their own traveling representatives from time to time to India to conduct their business. Nothing is specially said respecting American or other traders, but it may be assumed that if such a law shall be enacted it will apply to all countries, and that if an exception is made it will be in favor of England and her dependencies.

MOROCCO.

OPENING OF PORTS TO TRADE IN CERTAIN PRODUCTS.

Minister Gummere, of Morocco, transmits under date of April 30, 1907, a translation of an order issued by the Government of Morocco to the administrators of customs to permit the shipment of seed, grains, vegetables, eggs, fruits, birds (game), bullocks, sheep (only males), and other goods free from port to port in the Empire, excepting 1 per cent ad valorem for counting and weighing, as provided by article 65 of the Algeciras general act, observing at the same time the regulations and rights set forth in articles 93 and 94 of said general act.

Regarding horses, mules, donkeys, and camels, no shipment will be permitted unless by special permit from His Shereefian Majesty.

NICARAGUA.

CUSTOMS DUTIES IN DIFFERENT PORTS.

Consul F. M. Ryder writes from San Juan del Norte that the opinion seems to prevail among many American exporters that articles which are admitted into Nicaragua free of duty may also be imported into San Juan del Norte under similar classification. This is erroneous. When the free-port privileges were abolished, under the terms of the new commercial treaty with England, most articles entered at this port since January 1, 1907, for local consumption, were made subject to an ad valorem duty of 20 per cent gold on the invoice value. The free list in the Nicaraguan tariff does not apply

at Greytown. The exceptions to the above rate are liquors and tobacco, which are dutiable under the general tariff, while importations of alcohol, gunpowder, cartridges, shot, and all explosives are prohibited.

NORWAY.

IMPORTATION OF GOOSEBERRY BUSHES AND BERRIES PROHIBITED.

Consul Felix S. S. Johnson, of Bergen, reports, under date of May 3, 1907, that the importation into Norway of gooseberry bushes, as well as berries, is prohibited by a recent customs law.

RUSSIA.

PROPOSED DUTIES ON IMPORTS IN AMUR PROVINCE.

Consul Roger S. Greene reports from Vladivostok, April 8:

The military governor of the Maritime Province has instructed the Vladivostok Chamber of Commerce to arrange a local conference to discuss the question of whether the present policy of allowing free trade in the Amur provinces should be continued, and to collect information, statistics, etc., bearing on the subject.

At this conference there are to be represented the municipalities of Vladivostok and Nikolsk, the chief customs and internal-revenue officials of this district, the Imperial Bank, and other banking establishments, and it is stated that besides these there should be representatives of various classes of the population of the South Ussuri country.

The report, with the statistics and other evidence collected, will be presented to the military governor, who will forward the whole to the governor-general at Habarovsk with his conclusions. Similar reports will be prepared by other localities, and these will all be laid before a commission representing the whole Amur country. The report of this commission will be forwarded by the governor-general to St. Petersburg, and it is understood that after examination by the ministry of finance it will be laid before the Duma with the Government's recommendations.

The conferences at Vladivostok will begin in about a month, and the preparation of the report will consume considerable time; the other stages also will scarcely be passed through quickly; so that altogether the feeling prevails that any alteration of the status quo before the year is over is unlikely, even if the Government is, as supposed, in favor of reimposing the customs tariff.

TARIFF CLASSIFICATION OF PORTABLE ENGINES.

The British Board of Trade Journal of May 16 publishes a report of the British ambassador at St. Petersburg on the subject of the customs classification of portable engines imported into Russia. The Russian tariff prescribes two rates of import duty as applicable to portable engines, according to the purpose for which they are intended to be applied, viz:

No. 167 (5). Portable engines connected with complex thrashing machines or with steam plows, 75 kopecks per pood.

No. 167 (1) b. Other portable engines, 3 rubles 20 kopecks per pood.

Pood=36.113 pounds; ruble=100 kopecks=\$0.5151.

In January last the customs department issued a circular prescribing that the portable engines for driving thrashing machines of the several standard

sizes must be within certain limits of nominal horsepower, corresponding to the sizes of the machines in order to be dutiable under No. 167 (5) of the tariff at the rate of 75 kopecks per pound. The matter has, however, been reconsidered by a committee, the recommendations of which are now awaiting the approval of the minister of finance. In lieu of giving a standard of nominal horsepower, they contemplate a scale prescribing the heating surface of the engine which shall correspond to thrashing machine drums of various widths. These recommendations are to the following effect:

I. (1) Portable engines connected with complex thrashing machines or with steam plows, which have permanent apparatus for transport (not temporary, e. g., for the transit to portable engines to their destination), may be admitted under section 5, article 167 (75 kopecks per pound) of the customs tariff.

(2) In order that portable engines with thrashing machines may be admitted under section 5, article 167 of the tariff, the proportion between the heating surface of the engines and the dimensions of the thrashing machines must be as follows:

(a) Thrashing machines with spiked drums (or toothed):

Width of drum.	Heating surface not exceeding—
	<i>Square meters.</i>
24 to 26 inches	13
26 to 30 inches	17
32 to 36 inches	21
40 to 44 inches	25.5

(b) Thrashing machines with beater drums:

Width of drum.	Heating surface not exceeding—
	<i>Square meters.</i>
36 to 38 inches	9
42 to 44 inches	13
48 to 50 inches	17
54 to 56 inches	21
60 to 62 inches	25.5
66 to 68 inches	29.5

(3) Portable engines connected with steam plows are distinguished by a winch, for the winding of a wire cable, working the plow, and such a winch is generally situated under the boiler of the engine, but sometimes it is affixed to a separate stand or truck, adapted to portable engines.

II. Steam self-propelled portable engines, when imported with the complex thrashing machines and steam plows with which they are connected, will be admitted under section 5, article 167, of the tariff. Gas, petrol, benzine, etc., engines are not included in this provision.

The winch for use with self-propelling steam portable engines in conjunction with steam plows need not be imported with the engine itself, whether attached to it or separate.

The ambassador points out that the dimensions in square meters represent a maximum size in each case, and states that he has been assured that all portable steam engines smaller than those mentioned in the scale will be admitted under No. 167 (5) of the tariff when imported with any thrashing machine.

SERVIA.

PROCEDURE FOR OBTAINING FAVORED TARIFF TREATMENT.

The Servian Minister of Finance recently issued a circular letter to all Servian custom-houses with regard to the procedure to be followed by importers who wish to claim most-favored treatment for their goods. The circular states:

1. As soon as the declarer of the goods has proved that they come from a State enjoying most-favored-nation treatment in Servia he has the right to

have them all taxed under the most favorable treatment provided for in the tariff, even if different kinds of goods are imported in one receptacle.

2. As it is impossible for the declarer to name all the treaties under which conventional rates are provided for the different goods which he declares, it will suffice for the present if he inserts in his declaration the words "most-favored-nation clause."

SPAIN.

NEW REGULATIONS CONCERNING CONSULAR FEES.

The minister of Spain, in a note addressed to the Department of State, dated May 28, furnishes a translation of a decree relative to certificates of origin covering importations into Spain, which reads as follows:

His Majesty's Government has granted to the countries which enjoy the most-favored-nation treatment the temporary discontinuance and reduction of the rate of consular fees for the issuance and visé of certificates of origin on the understanding that these concessions shall be made only while the said treatment is enjoyed and on condition that they shall make the same concession to Spain. * * * This means for commerce a saving of 5 pesetas in a large number of cases and in all cases a reduction of 3 pesetas on the dues that burdened the shipment of foreign merchandise to Spain. (One peseta=\$0.193.)

SWEDEN.

REDUCTION OF IMPORT DUTY ON UNGROUND INDIAN CORN.

The British Board of Trade Journal of May 16 contains information to the effect that on the 27th of April both chambers of the Swedish Diet agreed to a reduction of the import duty on unground maize (ex tariff No. 596) from 3 kroner 70 öre to 1 krona 50 öre per 100 kilos, i. e., from \$1 to 40 cents per 220.46 pounds.

TURKEY.

INCREASE OF IMPORT DUTY.

Consular Ernest L. Harris, of Smyrna, in reply to inquiries from American manufacturers in regard to the import duty in Turkey, reports briefly as follows:

The import duty in Turkey on all imports from foreign countries is a uniform 8 per cent at present. This rate will be increased to 11 per cent within the near future, as the powers have given their consent to such increase.

Importers have the privilege of paying the duty on all articles, with the exception of pork, in cash or in kind.

Agricultural implements are exempt from duty, but not hand tools, such as spades, shovels, hay forks, etc.

On an average the customs charge on imported goods amounts to 12 per cent—8 per cent for duty and 4 per cent for sundry charges connected with the routine of the custom-house.

In connection with the above report of the consul, the following information, culled from the *Moniteur Officiel du Commerce* of May 16, will be of interest to American exporters doing business with Turkey:

The protocol for the increase of the customs duties of Turkey by 3 per cent ad valorem (from 8 per cent to 11 per cent ad valorem) has

been signed by the ambassadors of the great powers, and the increase will probably go into effect June 25, 1907, in case the measure should receive the approval of the legislative chambers of the foreign powers to which it must be submitted before taking effect.

The liquidation of the customs duties in Turkey is effected as follows:

The merchandise is appraised by an appraiser. The importer is not obliged to show the invoice, and the customs authorities are not obliged to consider it, in case it should be submitted to them.

In the case of merchandise which has no established price, the consignee tries to reduce the valuation, and some bargaining ensues. The importer has always the right of paying the customs duties in kind, but a rebate of 10 per cent of the duties is allowed on cash payments.

Watches and jewelry are admitted at specially reduced rates. Agricultural machinery is admitted free of duty. Cigars and chewing tobacco pay 75 per cent ad valorem and snuff 100 per cent ad valorem. Monks are entitled to import tobacco in small quantities for their own consumption free of duty.

Smoking tobacco, salt, sporting powder, revolvers, arms of war, ammunition, bullets and bullet molds, edible cotton-seed and peanut oils,* certain medicines, and, at present, automobiles and electrical apparatus are prohibited from importation.

Books and all other publications must pass through a severe censorship. The application to merchandise or other objects of the royal arms, images of mosques or Turkish ladies, is prohibited.

URUGUAY.

REDUCTION OF DUTY ON TYPEWRITERS.

A report from Consul J. W. O'Hara at Montevideo states that a decree has just been issued by the Uruguayan ministry of finance, ordaining that in the future typewriting machines be charged the same rate of duty as printing machinery, namely, 8 per cent. The consul says:

Heretofore importers of these machines were made to pay a duty of 39.5 per cent on a valuation of 50 pesos, thus adding about \$19.75 (\$20.42 American gold) to their cost. While the typewriter is popular, it is not in general use here, and this relief from a portion of the burdens heretofore imposed will, it is thought, increase the demand in this market. It should be borne in mind that all machines intended for this market should be supplied with the necessary Spanish characters.

VENEZUELA.

DUTY ON CHALK PENCILS.

Consul Eugene H. Plumacher, of Maracaibo, reports under date of April 27, that according to the decree of April 1 chalk pencils for school blackboards, not exceeding 16 mm. in thickness, are to be admitted as articles belonging to the third class of the Venezuelan tariff and subject to a duty of 0.25 bolivar per kilo (5 cents per 2.2 pounds).

MISCELLANEOUS.

SHOE AND LEATHER INDUSTRY.

BELGIUM.

ADVICE AS TO HOW TO INCREASE SALES OF AMERICAN SHOES.

Vice-Consul-General Gregory Phelan sends from Brussels the following report regarding the introduction of boots and shoes into Belgium:

In order to introduce American boots and shoes into Belgium, American manufacturers should carry on all their correspondence in French, and catalogues should also be printed in that language. All printed matter, catalogues, show cards, price lists are not liable to duty, provided that the name of the foreign firm only shall appear thereon, without indicating any other mercantile establishment or agent's name.

Prices at which these goods are sold depend entirely on the quality. The average retail selling price of men's ready-made shoes is \$4 to \$6.40 per pair, but it is claimed that the grade of goods imported some four years ago which retailed at \$2.50 were of better quality than the \$3 to \$3.10 grades now on the market. The terms of sale are generally 2 per cent at sixty days. Sales are also made at ninety days, four, and six months.

In making out the invoice of goods it is not necessary to describe the materials used in their manufacture. Boots and shoes should be marked 7 D, 7 E, 7 C, etc. When making shipments it would be advisable to include posters for show-window display, taking care to select those which would be suited to European tastes. [The names of the principal dealers in American boots and shoes in Brussels are listed at the Bureau of Manufactures.]

HOLLAND.

BAD SHIPMENTS OF AMERICAN LEATHER.

Consul Frank D. Hill, writing from Amsterdam, makes the following criticism of the manner in which some leather exporters conduct business:

I regret to say that constantly during the last two years reports have come to this office expressing deep dissatisfaction with shipments received here of American leather, which is the largest American manufactured export to the Netherlands. In more than one instance the goods have been returned, this office having a record in the return certificate. A prominent importer writes me:

The uncertainty in the delivery of American leather and noncompliance with the terms of the contract cause many buyers here to break off their American

relations. I have had myself a bad experience with an American leather manufacturer of Philadelphia, who shipped to me \$8,000 worth of bad leather (payment bill of lading attached to draft) on which I lost about \$800. Generally delivery is very untrustworthy, while many manufacturers do not give measure in accordance with the measure numbers on the skins. In general, my American leather business is very unsatisfactory.

NEWFOUNDLAND.

EXPERIMENTS IN MAKING LEATHER FROM WHALE SKINS.

The British consul at Chicago has made a report to his Government concerning the whaling industry carried on by Newfoundland fishermen. They have been attempting to make whale leather a commercial product, and are said to be meeting with some success. The average whale hide covers a surface of about 1,500 square feet. A square foot of the hide weighs from 2 to 5 ounces, and is priced as high as 50 cents. The leather is very tough, and is said to have great wearing qualities, and may therefore be adapted to the covering of furniture, buggy tops and seats, and also automobile uses. It is also claimed that it can be used for boots and shoes. Leather made from the intestines of the whale resembles kid, and is very thin and tough. It will take color readily, and is to be offered to glove manufacturers for making the long-sleeved gloves now worn by women.

FACTORY INSPECTION.

GERMANY.

NUMBER OF PERSONS EMPLOYED IN BADEN—FACTORY LABOR IN HOMES.

Consul H. W. Harris, of Mannheim, furnishes the following particulars in regard to factory inspection in the Grand Duchy of Baden:

The department of factory inspection employs 10 inspectors. During 1906 these inspectors examined 3,098 factories. The total number of employees in the factories was 223,118, of which 144,921 were adult males, 59,057 adult females, 18,720 youths of both sexes between the ages of 14 and 16 years, and 420 children. There were 22,202 workmen engaged in strikes or lockouts, as against 9,668 in 1905, and the number of accidents reported was 5,049, as against 4,876 in the previous year.

The number of persons employed in factory labor in their homes was 20,553. Cigar making led in this class of labor. Other branches of industry employing home labor were button manufacture, brush making, ribbon weaving, etc. The earnings of many of those employed in this class of labor exceed that of like employees in factories. But these earnings are often the result of labor extended far into the night. In the Black Forest clock industry, a working day of from fourteen to sixteen hours is common; also in many other industries.

The hygienic effects of this class of labor, carried on, as it often is, under poor conditions of ventilation, etc., are in many respects pronounced unfavorable. Wages earned by factory labor performed at home are shown to vary greatly in different localities. In some

cases they are above the average daily wages for other labor in the same localities. Thus, in the city of Pforzheim, which is a center of an enormous jewelry manufacture, the average daily wages for adult females is said to be 38 cents, and in the surrounding villages 31 cents, while the average daily wages of female chain makers is 46 cents and in other branches of jewelry manufacture is 45 cents. The average daily wages of burnishers of silverware at Carlsruhe is 79 cents, while that of other female employees in factories in that city is 36 cents and in the surrounding villages 31 cents. Adult females, working at their homes for a metal-ware factory at Böhrenbach earn an average of 45 cents per day, while the average paid for female labor in that locality is 33 cents per day. Females of the doll department of a large celluloid factory near Mannheim are said to earn from 45 to 53 cents per day in home labor, while the average wage paid female labor in the suburb is 41 cents.

CANADA.

CHILD LABOR—CHANGES IN QUEBEC'S LAWS.

Consul-General Church Howe, of Montreal, reports that some important changes in the provincial laws relating to the inspection of factories were recently made, of which he says:

The most important of these is one referring to the employment of boys and girls in factories, and is undoubtedly a step toward compulsory education in the Province of Quebec. The clause reads as follows:

Every child and young girl, less than 16 years of age, employed in an industrial establishment and not able to read and write shall, so long as he or she continues to be so employed or until he or she is able to read and write, continuously attend a night school within the municipality where he or she resides, if there be one there; and no employer shall receive a child or young girl into his establishment without ascertaining that such child or young girl can read or write, or (as the case may be) without a certificate from the principal or other teacher in charge of such night school that such child or young girl is attending the same. Such certificate shall be kept in the establishment and shall be shown to the inspector whenever so required by him.

A further regulation that has just come into effect is that in future no children under the age of 14 shall be employed in factories. The age previously fixed was 13 years. A movement will be made at the next session of the legislature to prevent children from working for more than ten hours a day in factories, in order to make up for the half holiday on Saturday; in other words, the hours of employment for children to be fifty-four a week instead of sixty, as at present.

EXPOSITIONS.

GERMANY.

INTERNATIONAL ART AND HORTICULTURAL EXPOSITION.

In reporting that an international art and horticultural exposition was opened at Mannheim on May 1 and is to continue until October 20, Consul H. W. Harris writes:

Machinery and tools exhibited pertain chiefly to fruit and flower culture. The number of American exhibits is not large. The best

single American exhibit is that of machinery used in soap manufacture, and especially of a combined machine for making paper boxes and printing the label in several colors. This consulate believes that this exposition would have fully warranted the preparation, under Congressional appropriation, if necessary, of at least one first-class exhibit of food products, and especially of dried, canned, bottled, or otherwise preserved fruits. It would have been an appropriate exhibit, welcomed by the management, and served an excellent purpose in further advertising in Germany products which have never been fairly advertised in this country. Such an exhibit would have doubtless had a favorable effect on other branches of our food products. That within three days after the opening of the exposition more than 40,000 season tickets have been sold is some evidence as to how much the European exposition draws and why it is that months ago every foot of available hall space at this exposition had been taken. As is well known, all the leading European countries, through a standing commission or other public channel, take note of all expositions and see to it that those which are likely to be meritorious are patronized as a matter of public interest. The case would seem to call for some like provision on the part of the United States.

ENGLAND.

EXHIBITION IN LONDON NEXT YEAR.

Consul-General R. J. Wynne reports that official announcement is made of an exhibition in London during the summer of 1908 to include science, art, products, manufactures, and systems of education of the whole British Empire, together with those of France and all her colonies. The preliminary arrangements were made last November between the officials of the Governments named, and a site for the exhibition agreed upon. The Olympic games of 1908 will be celebrated in these grounds apart from the exhibition itself. Persons desiring information will address the secretary, at No. 56 Victoria street, Westminster, S. W., London, England.

CONSULAR AND TRADE PUBLICATIONS.

The publications made up chiefly of reports from United States consular officers in foreign countries include the following:

COMMERCIAL RELATIONS, being the annual reports of consular officers on the commerce, industries, navigation, etc., of their districts.

REVIEW OF WORLD'S COMMERCE, being a summary of the annual reports contained in **COMMERCIAL RELATIONS**.

DAILY CONSULAR AND TRADE REPORTS, issued daily, except Sundays and legal holidays, mailed gratuitously to commercial and industrial organizations, manufacturers, exporters, and the press.

MONTHLY CONSULAR AND TRADE REPORTS, compiled from the daily, and issued every month, with index.

SPECIAL CONSULAR REPORTS, on particular subjects, made in pursuance to instructions from the Departments of State and Commerce and Labor.

Until July, 1908, all Consular Reports were issued by the Bureau of Foreign Commerce of the Department of State; from that date until June, 1906, they were issued by the Bureau of Statistics of the Department of Commerce and Labor, with which the Bureau of Foreign Commerce of the Department of State was consolidated July 1, 1908; since July 1, 1906, they have been issued by the Bureau of Manufactures, Department of Commerce and Labor. For details of these publications, and the reports remaining for distribution, address "Chief, Bureau of Manufactures, Department of Commerce and Labor, Washington, D. C."

The publication of reports on specific subjects, in separate form, was begun in 1890. The editions of many of them are exhausted. The following titles are available for distribution:

Vol. 23 (1901).—Part I. Gas and Oil Engines.

Vol. 26 (1903).—Briquettes as Fuel in Foreign Countries.

Vol. 27 (1903).—Markets for Agricultural Implements and Vehicles.

Vol. 30 (1904).—Emigration to the United States.

Vol. 32 (1904).—Foreign Markets for American Fruits.

Vol. 39 (1907).—Cotton-Seed Products in Foreign Countries.

Vol. 40 (1907).—Motor Machines.

Foreign Markets for Sale of American Cotton Products.

Cotton Fabrics in British India and The Philippines.

Leather and Boots and Shoes in European Markets.

England's Cotton Industry.

Tariff series:

No. 1. Tariffs on Leather and its Manufactures.

No. 2. Tariffs on Agricultural and Animal Products.

No. 3. Tariffs on Machinery, Machine Tools, and Vehicles.

No. 4. Conventional Tariff of Servia, based on Treaties with Great Britain, France, and Italy.

No. 5. Commercial Agreement between the United States and Germany.

A few copies of reports made by special agents on trade conditions in the countries visited by them are also available, as follows:

Argentina.

Asiatic Turkey.

Brazil.

Central America and West

Coast of South America.

China.

Cuba.

Egypt.

India.

Japan and Korea.

Mexico.

The Philippines and Bengal.

"Trade with China" is a pamphlet of 110 pages, illustrated, with an introductory chapter on Packing. It is compiled from reports made by special agents which were printed in Daily and Monthly Consular and Trade Reports. A few copies are available.

Of the **MONTHLY CONSULAR REPORTS**, many numbers are exhausted or so reduced that the Department is unable to accede to requests for copies. Of the publications available for distribution, copies are mailed to applicants without charge. In view of the scarcity of certain numbers, the Department will be grateful for the return of any copies of the Monthly or special reports which recipients do not care to retain. Upon notification of willingness to return such copies, franking labels to be used in lieu of postage in the United States, the Philippine Islands, Hawaii, and Porto Rico will be forwarded.

Persons receiving **CONSULAR REPORTS** regularly, who change their addresses, should give the old as well as the new address in notifying the Bureau of the fact.

All communications relating to **CONSULAR REPORTS** should be addressed, "Chief, Bureau of Manufactures, Department of Commerce and Labor, Washington, D. C."

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